1935.1. Trout Creek, 1 miles N.W of Locust Ridge, Tobyhanna Twp., Monroe Co. Pa. (R. R.) July 7, 1935. Elev. 1140 feet.
In deciduous trees, growth in rock talus. Mod. numerous few adults, numerous immatures. Canadian conditions.

1935.2. One-and-one-half miles E. of Lemandville, Kidder Twp., Carbon Co., Pa. (R. - R.) July 7, 1935. Elev. 1800 feet.
In low deciduous coppice growth with ground cover of huckleberries, trees few a sheep laurel. Neohaplotettix 2 ♂, juv. ♂ - ♀. very local, taken from trees sup. Chlorochlis juncal. Emg. mixed Melanoplus, ♂ ♂ only, on lower ground cover, adults scarce.

1935.3 One mile N. of Sandy Run, Foster Twp., Luzerne Co., Pa. (R. R.) July 7, 1935. Elev. 1400 feet.
In roadside growth of sassafras, mint, trees few and oak shrubs flanking trees with trees of silver birch, maple and oak. Mod. Neoconocephalus 2 ♂ ♂ sup. to

mint stalks, no more seen. M. arabis
1 adult ♂, few. juvs. in oak & ash. Juvs.
of M. sp.? numerous. Mel. bivittatus
♂ - 2 adults few, tunnel, few. juvs.
low down near ground in tall corn,
Area almost sandy like.

1935.4 - 3 m. E. of Vincmont,
Berks Co., Penna. Elev. 700 feet. July
14, 1935. Mixed deciduous & pine (R. - R.)
woods on boulder strewn slope.
Nothing adult - In old field along stream:
one adult Euphina sulphurea escaped,
adult Chortophaga sp., one Tettigidea,
immature Orphulella, Scudderia,
Orchelimum & Conocephalus.

1935.5 Little Mountain, 2 m. E. of
Lickdale, Lebanon Co., Pa. Elev.
875 feet. July 14, 1935. (R. - R.)
Along woodland road, on slope of
mountain, in deciduous cover.
Few adult Chloealtis, very immat.
Melanoplus, Scudderia, etc. One
adult Dromotettix.

1935.6 Buffalo Flat, betw. Buffalo + Branch Mts., about 5 mi. N.W. of Hartleton, Union Co., Pa.
July 31, 1935. (R. + R.) Elev. (aneroid) 2600 feet, subject to correction.

Small shoulder slightly below top of ridge; small stream near. Cove culled round growth, 10-25 feet high largely oak, maple, some pine, undergrowth mint fern, huckleberry and laurel. Small full clearing + grassy with low huckleberry bushes.

Chorthippus + cauc in grass. Lophalella speciosa few in grass, mc kennal. Chloealtis few, along edge of tree cover, 2 males taken, 1 ♀ seen but escaped. Xiphidium 1 ♀ in huckleberry + sub. Melanoplus bivittatus in grass + huckleberry bushes. Some pretty, quite common. Mel. borealis + cauc (15 ♀) in fall cover along tree margin. Mel. femur-rubrum common in grass and huckleberry ground cover, in both open + under trees, active but not difficult to capture. Mel. fasciatus in same situations as femur-rubrum, but largely on ground, not so numerous. Conocephalus fasc. rather common in grass and low huckleberry cover, immature to fair numbers among adults.

Scaddeira fumata adults + juvs.
In fair numbers in bush com under trees.

Scaddeira ? pistillata ♂ septentrionalis

Com male taken with fumata.
Amblycorypha rotundifolia. 1♂. Occ

Scaddeira - all sum.

77

1935.7 Occ 1935.6 but at dusk and until about 10.15 P.M. R. + R.

Xiphidium in grass patch.
Neoconocephalus ♂ + ♀ in corn on alder (?) about 4 feet from ground - taken with light. Edge of boggy spot. (D.M.W.R.)
Atlanticus 1 ♀ dorsi. in low bush, about 1 foot from ground, near low boggy spot.
Amblycorypha rotundifolia Shaken from trees at dusk.
Scaddeira fumata ditto.
" septentrionalis, very numerous in oaks + maples, and ? alder, 3 feet or more from ground, sometimes as high as ten + twelve. Note slow, spaced trick, trick, then after minute tempo + volume increased. Most shaken out and marked

dmn after falling a short flights. Paid little attention to flash-lights. Equally numerous after dark and at dusk. Position taken varied, may be in heavy cane or out on end of bare twigs.

~~43~~ + 77 = 120

1935. As 1935.6 but Aug. 1, 1935.
R. & R.

In second growth forest of oak, maple and scattered pine, with alder (black), sassafras and a white-berry bush tree.

Nomotettix 1 on ground in bird corn.

Chloealtis along road edge in second growth.

Sphenagemon planum 1 ad. ♀ + 1 juv. along lumber road bare spots + on ground in low scrub. Anoedera cum and bost.

Melanoplus confusus 3 small females in scrub. Mel. fasciatus locally common in scrub, both on ground & in low ground cover. Mel. walshii 2 ♀, one in high bush, the other on the ground, one about fifty feet from ground, small twigs ostrinus type in similar situations to last. Mel. bivittatus a few in wetter grassy spots. Mel. short-winged (2 spp.?)

common and rather general in low ground cover of huckleberry bushes, occasionally on dwarf pine and Empetrum, Actin, and jumpers, elusive.

Mel. punctulata a very few adults (1 ♀ taken 7/11/12) and infrequent jumpers on trunks and branches of alder (black) and oak.

Klondiketettix A.p. (20±) Local, in small colonies, on trunks, branches, twigs and occasionally on dwarf black alder, oak, maple, and in dorsal cases on Empetrum beneath trees and in one case on bare ground. Adult females much less numerous than adult males, & immatures well represented. The males are tremendous jumpers, although not quickly alarmed. When determined to jump they launch forth in a leap of as much as a dozen + feet

Scudderia furcata numerous in brush, always ending a flight in a tree or shrub.

Sc. septentrionalis with much the same habits as furcata.

195 + 120 = 315

1935. 8 (cont.) In Bm. in similar condition but usual areas of more boggy character
Chonthypnus fwd in grass in clearing (not fwd. part. in this).
Cephaloziella spinosa 1 juv. in grass in clearing.
Sphagnum tolii 1 ♀ in huckleberry scrub.
Dist. mingled Mnium punctatum, chiefly in low huckleberry scrub.
Mnl. fasciatum as in Am.
Mnl. medium in tunnel at clearing edge.
Blindia acuta ♯ 6 ♂ ♯ ♀ in very local patches on birch
erect form, tall huckleberry bushes, in butt hobo, as well conditions as for Am.
Conocephalum conicum in grass.
Scapania ♯ Amblystegium riparium
in low bush under trees.

71 + 315 = 386

1935. 9 As 1935. 6 last entry of Aug. 1.
Blindia acuta 18 in patch in huckleberry scrub.
Mnl. medium By bank of small stream in low forest.
Mnl. fasciatum Almost house.
Scapania ♯ Aplozia cuspidata all attracted to light in house.

30 + 386 = 416

1935.10 As 1935.6 but Aug. 2, 1935.
(R. - R.)

Generally similar conditions, but in part on side of more exposed ridge, some rather more open. Part of time spent in areas examined yesterday.

Hendrotettix in a variety of situations, on bare ground, in huckleberry bushes and on alder. Mel. walshii
Mel. fasciatus universally dist. in huckleberry ground cov. Mel. dist. mixed locally common in same. Mel. confusus & mod. females - scarce. Sphagnum plumus in grass hole clearing and along road. Arphia sulphurea along road. Chortophaga along road. Chloealtis bush on road edge. Camptophyllus in hole in rotten log. Nomotettix in bare spots on ground. Pterophylla imat. only - numerous on foliage of oaks, in resting position at right angles to body, caudal at to body. Amblycorypha on roadside bush. Acrometopa grass on roadside scrub.

138 + 416 = 554

1935.11 Near Poplar Gap, Pocono Escarpment, Monroe County, Penna. Elev. 1850 feet. (R. - R.) Aug. 18, 1935.

Low scrub of stunted but mature oak, low pine (no cones noticed), huckleberry, sweetfern + bracken. Occasional small open areas of dry reindeer moss. Some evidence of burns in last decade.

Neuroterus (48, 7♀ 4 sex) on oak only, all sex except 1♂ lost.

Sphaageneae infrequent, on ground a huckleberry bushes, 1 taken from pine about six feet up.

Melanoplus dawsoni in low scrub cover (huckleberry + reindeer moss). Scarce, 1♂, 3♀ taken, all seen.

Melanoplus fasciatus sexually distributed, but usually ~~quite~~ low or on the ground.

48

No immature seen.

1935.12 Betw. Greentown and east end of Lake Wallenpaupack, Pike Co., Pa. Elev. 1100 feet. (R. & R.) Aug. 18, 1935.

In grown up but young clearing in stand of old & middle-aged maples, made up chiefly of blackberry, sumac & poke bushes. Almost no orthoptera. Acanthus sup. Hisson kind in bunches. Nemobius on a near ground. Scudderia furcata in bushes.

16 + 48 = 64

1935.13 ~~One mile~~ Blooming Grove, Pike Co., Pa. Elev. 1250 feet. (R. & R.). Aug. 18, 1935.

In old field & thickets along edge of woods containing white pine. Mel. confusus 1 ♂ on edge of woods. M. borealis sev. ♂ & number of ♀♀ on edge of woods and in thicket. 1 ♂ M. femur-rubrum in grass - approx. immens juv. Xiphidiopsis

bollii, sev. near mrd edge. Chlocaltis
1 ♀ in mrd edge. Lyph. typica in
fair numbers, principally in grass.
Emmophalus hispinus common in
tall grass. Neroneurophalus 1 ♂ in
tall grass. Umbilicympha 2 ♀ near
woods in. bog bushes. Syllus
1 ♂ ad., in grass. Nemobius numerous
in various situations. Alcantha
in tall weeds. Hypotattix few in
ground.

77 + 64 = 141

1935.14 Bald Knob Summit, Alleghany Escarpment, Somerset Co., Pa.
Elev. 2906 feet. (R.-R.) Aug. 27, 1935
1 - Chorthippus in roadside grass -
bog huckleberries on edge of woodland

2

1935.15 Three miles east of Jennerstown, Somerset Co., Pa. Elev. 1900 feet. (R.-R.)
Aug. 27, 1935. In blackberry and other
along roadside.
Scudderia in both blackberries and
bog cover.

Mef. cufuscus, fasciatus, bilineatus in bnd grnnd com. Jmo. of Mef in same situation. Clubionella tw. (18 ♀) activ, in bnd grnnd com. Acanthus supt. Amblycentha undifolia on grass. Misumena dead on bnd bush. Chorthippus in bnd grnnd com.

24 + 2 = 26
6 Other ins.

1935. 16 2 miles South of Mechanicsville, Clarion Co., Pa. (R. & R.) Aug. 29, 1935. Elev. circa 1200 feet. Open woods of oak, maple, hemlock & white pine; grnnd com lycopodium, trailing blackberry with bags of bushes.

18 Diaphoromera beaten from roadside & sub.

Nomotettix on woodland & bare spots. Acrydium on roadside.

Cephalella sparsa & juvs. Chortophaga on roadside grass.

Pharagenon on bare roadside spots & sunny areas in woodland.

Melanoplus morsei ? bny local in sunny spots in or on edge of woods. Rather inactive, cold. Area treated, males

on roadside of road, females on other.
Mel. lunidus 1♂ in roadside.
" bimaculatus 1 ♀ on roadside.
Scudderia 1♀ beaten from roadside bushes
Acanthus beaten from roadside bushes.
Neoconus 1♀ in roadside grass & corn
Gryllus roadside

30 + 26 = 56

1935:17 Near Arthur, alt. 3 m. NW. of Clarion, Clarion Co., Pa. (R. & R.) Elev. 1450 feet. Aug. 29, 1935.
Along road, R.R. track and in open woods of oak, with sumac, hazel etc. Almost nothing. Amblycorypha & Scudderia ~~& Sphagnum~~ in roadside brush. Acrydium & Sphagnum on ground in ditto. Nothing seen in woods.

5 + 56 = 61

1935.18 Near Maple Creek, between Keeper and Marienville, Forest Co., Pa. (R. & R.) Elev. 1650 feet. Scrub on cut-over land. Many saplings of aspen, much hazel brush. Scudderia swept from hazel brush. Sphagnum on ground

in grass. Melanoplus bivittatus
stupt from low bush. Oecanthus
stupt. Nemobius on bare ground
9 + 61 = 70

1935.19 Near Pigeon, about 8 miles N. E.
of Marienville, Forest Co., Pa.
Elev. 1750 feet. (R.-R.) Aug. 29, 1935.
Bush from cut-over land, com
chiefly low aspen and wild cherry.
Chorthippus 1 in tall grass.
Chortophaga fav. in old open road.
Xiphidium abundant-general.
Microcentrum, On old road.
Melanoplus punctulatus - numerous
on the trunks of the smaller live
wild cherry trees - 2 pairs in cópu-
tion ~~also~~ taken on insect form.
Mel. mexicanus (fem) and femur-rubrum
roadside - along old road.
Scudderia few in bush.
Oecanthus - roadside on golden-
rod - beaten.
57 + 70 = 127

1935.20 Near Chaffee, Elk Co., Pa.
(R.-R.) Aug. 29, 1935. Elev. 2050 feet.
Damp ground front of maple, beech, wild cherry, etc.
Nomotettix on dead leaves along edge of third-way in front.
Opharagnum on dead leaves in same.
Cent thin ♀ (?) Mel. punctulatus caught in rotting log.

30 + 127 = 130

1935.21 Near Round Island, Betw. Susquehanna and Driftan, Clinton Co., Penna. (R.-R.) Elevation 600 feet. Aug. 30, 1935. Fair.
In deciduous woods with a few white pine. Mel. dimo chiefly along abandoned road-bed in woods.
Nomotettix fed on bare spots of old road.
Melanoplus walshii. Beaten from tall weeds and briars along old road.
Amblycorypha rotundifolia. Beaten from weeds along same.
Atlanticus davisi (?) One on bare ground among dead leaves in woods.

Cnemophalus Roadside mdo.
Nemobius On ground of old road.
12 + 130 = 142

1935.22 Betw. North Bend and Hyner, Clinton Co., Pa. (R. & R.) Aug. 30, 1935. Elev. 430 feet.
Deciduous forest with scattered tamarack.
Nemobius in dead leaves.
Melanoplus walshii on ground among leaves.
Centrophilus on ground among leaves.
3 + 142 = 145

1935.23 Muncy Valley, Lycoming Co., Pa. (R. & R.) Aug. 30, 1935. Elev. 675 feet.
Edge of woods (deciduous with a few ~~tsuga~~ hemlock), field and low bushes. RR. embankment
Encoptolophus: ads. & juvs. along railroad embankment in grass and low weeds.
Mel. bivittatus in tall weeds.
" femur-rubrum in woods & grasses.
" sp. (♀) ditto.

Chortophaga just. in grass.
Scudderia & Conocephalus in grass.
Nemobius in grass.
Oecanthus swept from weeds.

29 + 145 = 174

1935. 24 Laporte, Sullivan Co., Pa.
(R. + R.) Elev. 1975 feet. Aug. 30, 1935.
Along edge of rather dense hemlock and deciduous woods. Nothing at all seen in woods - rather chilly, late in day, little sun.

Chorthippus in grasses of roadside drain,
Melanoplus bivittatus & femur-rubrum
& Nemobius in ditto.
Neonotallix on drier roadside ground.

11 + 174 = 185

1935. 25 Near Ringdale, Sullivan Co., Pa.
(R. + R.) Elev. 2005 feet. Aug. 30, 1935.
In woods from cleared land. Common deciduous, maples, hemlock, etc.; low conocarpet ferns, low huckleberry and false box. Many mandarins type about patches of sphagnum.

Podisma (usually mated) on high, huckleberries (some on high to foot from ground), ~~teapoon~~ on huckleberry and direct sun, did Acrid except in sect. appearing very locally in a limited area.

Une is a perfect ~~gynandromorph~~ with ♀ characters. Acanthus. & 2nd specs ♂.

Scudderia, sing♂, usually from low & tuft.

Melanoplus viscitator sing♂ from low tuft.

Mel. ~~rainieri~~ (?) low ground.

Camptonotus carolinensis sing ground.

Conocephalus sing ground.

34 + 185 = 219

1935.26 Three miles E. of Carbondale, Lackawanna Co., Pa. Elev. 1800 feet. (R. + R.) Aug. 31, 1935.

In low huckleberry barren. All except from huckleberries — Mel. femur-rubrum, M. fasciatus, Chorthippus, Orphulella — Acanthus.

14 + 219 = 233

1936

1936.1. Willow Grove, Kent Co., Delaware.
June 21, 1936. (Rehn. Rehn.)
In roadside short grass & shrubbery, edge of woods of oak, etc., outcrop of sandy soil with little grass cover & a few low pines.
Mantid juv. on roadside shrubbery.
Cyphuleida juvs. only wood edge & sandy area.
Hylchromopha juvs. in short grass close to sandy area.
Chortophaga - a few adults only in poor grass & along wood edge.
Hisaroteina - One adult seen, many juvs. roadside
Melanoplus bivittatus - a few juvs. - one adult ♂ - roadside Shrubbery.
Arphia sulphurea - One male in roadside grass - bush - all seen.
Tomotetta - a few along wood road & sandy edge of woods.
Neotettix - one in sandy area.
Tettigidea - one " " " with scattered pine.
Pterophylla - juv. beaten from oak scrub in woods.

Sanddune - dun. juns. - numerous sun.
Amblycoypha - dun. juns. dun.
Conocephalus . . . .
Atlanticus 1♀ in instar preceding maturity on ground - taken in oak woods

32 =

1936.2 Sandtown, Kent Co., Delaware. June 21, 1936. (Rehn - Rehn.)
Loro pine woods with oak - sassafras under cover, ground with grass - similar very low herbage, bare sand in places.
Paracoblatta 1♀ supt from ground.
Eritettix 1♀ (all dun) in low grass in woods.
Orphulella juv. in low grass in woods.
Neoconocephalus supt from sandy patch.
Orphula juv. in woods scrub.
Mel. brittatus (?) juv. - funeral.
Amblycorypha - very small juv. dun.
Mantid juv. supt.

16 + 32 = 48

1936.3 Between Sudlersville and Millington, Queen Annes Co., Maryland - June 21, 1936.
(Rehn - Rehn.)

Along roadside, in deciduous (chiefly oak & star gum) woods and sandy old field and edge of dune with blackberries etc.

Neoconocephalus - several along roadside ditches, most from tall grass.

Orphulella pra. - in sandy area.

Melanoplus adults - 2 pra. along roadside on concrete road.

Orphia sulphurea 1 ♀ seen clearly but escaped among dead straw, etc. in grass-rye area on road edge.

Chortophaga 1 ♀ - roadside - all seen.

Pharagmus bolli 1 pra. same habitat as Orphia.

Melanoplus ~~at~~ mexicanus 3 ♂♂ in tall grass, etc., roadside & grass-rye areas.

Melanoplus confusus (?) 1 ♀. ~~dubius~~ in grass.

" bivittatus ♂-♀ in fair numbers in tall grass, both, roadside & open.

Scudderia pra. - numerous - not taken.

22 + 48 = 70

1936.4 Summit Bridge, Newcastle Co., Delaware. June 21, 1936.
(Palm - Palm).

Scrub pine & locust in disturbed condition, apparently planted in canal dredgings.

Melanoplus jnvs. rondoide scrub.
Psinidia jnv. in clayey ground among locust trees

3 + 10 = 13

1936.5 ~~2 mi~~. S.W. of Abbottstown Adams Co., Penna. Elev. 600 feet. (Palm - Palm)
July 4, 1936.
Old field on hillside bordering deciduous woodland - corn very low, chiefly wild strawberries.

Paroxyatta uhleriana 1 ♀. In wild strawberry
" sp. 1 ♀ juv. " " "
Diapheromera 1 Nm. juv. seen in woodland - not taken.
Xiphidium ♂♀ not common, in ground
Orphula 1 juv. all seen.
Pardalophora apiculata 1 ♂. all seen.
Spharagemon bolli. Species adult & a few juvs.

(1936. 5-)

Melanoplus bivittatus Adults numerous -
a few juvs. - last instar.

" ?? morseii or atratipennis
Both sexes & ad and not numerous. In wild thawthy
Two obtusiphases in ♀♀. and wood edge tangle. Juvs.
Hesperotettix also but not common. viridis Adults & juvs in grass area (different habitat).

Amblycorypha rotundifolia 1♀. - 1 juv.
In woodland edge bush.

Gryllus assimilis Adults in fair numbers.

Nemobius fasciatus. Juvenally distr. in old field - active, elusive, hiding in holes and under debris. Also juvs.

Neonotus sp. Juvs. numerous.

69 + 73 = 142

1936.6 ~~Scotch Hill~~ Green Ridge. crossing, 5 m. W. of Cashtown, Adams Co., Penna. Elev. 1550 feet. July 4, 1936. (Rehn-Rehn).

In deciduous woods. - very little.

Neonotus in ground in woods.

Amblycorypha juvs. - in woods.

142
3 + 3 = 144

1936.7 Tuscarora Summit, Cove Mtn.,
~~Mifflin~~ Franklin-Fulton Cos., Penna.
Elev. 2123 feet. (Rehn & Rehn.)
July 4, 1936.
Low second growth deciduous forest on rock slabs, with blackberry & wild grape tangles.
18, 1 juv. ♀ Chlocalti.
Sev. orthopt. Melanoplus not taken
144 + 2. = 146

1936.8 Three miles N. of Hollsopple, Somerset Co., Pa.
Elev. 1100 feet. July 5, 1936.
(Rehn and Rehn.)
Small flat in area in deciduous forest near torrent bed.
Juv. Tuxaledo & melanoplus.
Juv. Scudderia sem.
No adults, and little of anything.
[illegible] + 6 = 153

1936.9 Portage, Cambria Co., Pa.
Elev. 1400 feet. July 5, 1936. (Rehn and Rehn)

1936.9 (cont.)

Open mixed deciduous woods, with much forest; understory grass and three fern succulents. Almost nothing.

18 Chloealtis suspt.

2 juvs. Diapheromera suspt from undergrowth.

Melanoplus bivittatus Juvs. only.

15 + 4 = 19

1936.10 Tyrone, Blair Co., Pa. Elev. 900 feet. July 5, 1936. (Rehn and Rehn)

Roadside, woodland edge. Almost nothing.

1 juv. Diapheromera suspt.

19 + 1 = 20

1936.11 Between Bald Eagle and Hannah, Bald Eagle Valley, Centre Co., Pa. Elev. 900 feet. July 5, 1936. (Rehn and Rehn.)

In old field with thistle, daisies, etc.

Chorthippus Av. adults - numerous juvs.

Mel. bivittatus 1 ♂.

Mel. confusus ♀ 1 ♀.
Tettigidea - scarce and local.
Multitude of my young Melanoplus.
157 + 12 = 170

1936.12 Near Waddle, east side of Bald Eagle Ridge, Centre Co., Pa.
Elev. 1000 feet. July 5, 1936.
(Rehn and Rehn.)

Second growth scrub forest, chiefly oak, and roadside clay hill outcrop.

Chloealtis 1 ♂ In low bush in woods.
Pardalophus apiculata 1 ♂ in bush lost in woods.
Aphis sulphurea. Un grass-land in woods.
Dissosteira juv. - roadside.
Mel. bivittatus 1 ♀ adults.
" confusus a few adults, chiefly roadside.
" mexicanus a few - roadside.
" short-winged 1 ♂. Low growth under oak scrub.
Amblycorypha juv. One in moth preceding maturity swept in woods.

1936.12 (cont.)

170 + 23 = 193

1936.13 Boalsburg, Center Co., Pa.
Elev. 600 feet. July 5, 1936. (Rehn and Rehn.)

Open tall deciduous woods, with grass, may apple low cover, and in nearby field of buckwheat.

Chlorakis numerous but hard to catch.
88, ♀♀ - few. In woods and into field.

Sphaagnum Willi Few adults - few immatures, in both field & woods.

Orphia sulphurea. Two at wood edge (field side).

Mel. confusus. Several.

" brittatus. Few - chiefly in woods.

Atlanticus ♀♀. 2 ♀ in field in grass among dry leaves blown into field from woods.

193 + 59 = 252

1936. 14. Long Mtn. crossing Juniata
Potters Mills and Milroy,
Mifflin Co., Pa. Elev. 1650 feet.
July 5, 1936. (Rehm and Rehm.)

Second growth oak and maple forest,
undercover of laurel, sassafras and
huckleberry

Mel. sp. jmo. 2 taken, one other
all dem. This mo all
Leth. mixed.

252 + 2 = 254

1936. 15 Broadhead Creek, 5 m. S.
of Canadensis, Monroe Co., Pa.
Elev. 750 feet. July 19, 1936. (Rehm &
Rehm.)

In old field between road and edge
of deciduous second growth forest.
Grass with scattered Rudbeckia,
low sumac, wild blackberry and
sweet fern along edge of roads
spots quite bare and very dry.

Nemotelus - a few spp!
Acrydium sp. - one. "

(1936. 15)

Asphondylia sp. nr. ono. adv. + juv. local

Chloealtis conp. 1♀ Sunpt, from near barren spot.

Œnoptolophus sordidus. juv. - nymph in late instar others very small.

Pardalophora apic. 1♂, 1♀. all teneral.

Phaneroptera carolina - very not taken.

Spharagemon bolli. Few - local.

Melanoplus confusus - Abundant.

" sp. Nymph - unripe. 1♂ - all teneral.

" punctulatus. juv. Few.

" bivittatus. 1 juv.

Scudderia sp. A few juvs.

Xiphidium sp. juvs. very abundant - not taken.

Clark. 69.

1936. 16. Sky top, Monroe C., Pa. Elev. 2075 feet. July 19, 1936. (Rehn + Rehn.) On plateau top - cut-over oak scrub with sweet-fern, huckleberry and other low bush. Along each side road.

Diaphorneura 2 juvs. swept.
Nanotaltica Cu Leun, last.
Chloraltica emp. Commm, usually near dead twigs in cut scrub bush. Females by no means as active as males.
Alphira sulphurea. 1♂. In road.
Cammula pellucida. 1 in road.
Blasiostoma. Two - in road.
Melanoplus fasciatus. Annually distr. in fair numbers.
Mel. confusus. On road edge - not common.
" extremus (?) Two ♂♂, singly in bushbeating scrub.
" marcus. Few in oak scrub and sandflats.
" viridipes curycercus. 1♂ in oak scrub - all com.
Appalachia hebardi. 1♂ 2♀. Singly - ♀♀ on ground in oak scrub and in sandflats, ♂ on dead bare twigs. Hom. com on fire & bush trunks.
Scudderia sp. 1♀ in huckleberries; juv. immature.
Amblycorypha sp. 2 adults, beaten.
With 100.

1936.17 Angelo, Wayne Co., Pa. Elev. 2000 feet. July 19, 1936. (Rehn and Rehn.)

Melanoplus confusus. 1 ♀ roadside through heavy deciduous forest on broken rock. Nothing else seen in Orth. Orth. - 1

1936.18 Tobyhanna, Monroe Co., Pa. Elev. 2000 feet. July 19, 1936. (Rehn and Rehn.)

Xiphidium, few scant barren, cut off along roadside, much bare slab rock and small fragments exposed.

Chloealtis 1 ♀ seen - not taken.

Chorthippus 1 ♂ - roadside.

Orphulella speciosa " "

Camnula pellucida. Very locally numerous, active, shy, flying freely, and into trees.

Sphagemon spicer. Local but not numerous. Among rocks and in shrubs.

Circotettix verruculatus - very local, not numerous, on rocks only.

Melanoplus mex. Roadside - few.
" " " - few.
" bivittatus In cut-off brush.
(Cat 3).

1936.19 Poplar Gap, Monroe Co., Pa
Elev. 1850 feet. July 19, 1936. (Ruhm and Ruhm.)
Same loc. & exact area covered by 1935.11.
Xiphidium - Moderately common on ground.
Orphulella speciosa. Jumping hab.
Chloealtis conp. 1 ♀ on ground.
Melanoplus dawsoni 1 ad. ♂ 1 (prob.) juv. in low huckleberry.
Melanoplus short-winged sp. 1 ♂ 3 ♀ - in huckleberry & sumac.
Mel. fasciatus - Common.
" bivittatus. - Juv. Few.
" sp.? Juv. In huckleberry.
Appalachia hebardi. 1 ♂ tarsi from oak scrub.
Amblycorypha - Few adults on oak scrub. Juvs. also.
Scudderia pistillata, 1 ad. on ditto. Juvs. also.
Cat 49

1936-20 Two miles west of Gore, Frederick County, Virginia. Aug. 8, 1936.
Elev. 940 feet. (Rehn - Rehn.)
Second-growth burn of mixed deciduous woods (oak, locust etc - huckleberry on ground). Ground completely bare in places.
Paratylotropidia brunneriana.
1♂, 1♀, Taken singly, ♀ on low oak, ♂ on huckleberry. All area although extensive search made.
Sphagemon bolli - In fair number, alighting on foliage and dead branches.
Sph. planum. Scarce. Same notes.
Nomotettix - 1 ♀ spt.
Dissosteira - 1 seen, not taken.
Melanoplus luridus. 1♂ 1♀ adult taken, several adults lost. Numerous juvs.
Diapheromera 1 juv. seen.
Schistocerca juvs. Numerous seen.
Orth. 20 22

1936-21. Two miles S.W. of Rehrersburg, Hampshire Co., West Virginia.
Elev. 1200 feet. August 8, 1936.
(Rehn - Rehn.)
In cutleaf oak - maple woods, much dead stuff on ground.
Nomotettix juvs. on ground.
Sphagemon bolli - A few in low area and Dissosteira seen but not taken. on ground.
Melanoplus sp. Juv. 1. Orth. 2

1936.22 Near Mutton Run, Cacapon River, 4 miles N.E. of Wardensville, Hampshire Co., West Virginia. Elev. 1050 feet. August 8, 1936. (Rehn - Rehn).

In cut-off stump land, ~~probably~~ chiefly oak, with low scrub growing in.

Eyrtula 2 juvs. - all sum.

Hippiscus rugosus. Not uncommon - usually 8 juvs.

Chortophaga viridifasciata 1 adult ♂ sum but lost, juvs. taken.

Melanoplus bivittatus Few adults.

Scudderia 1 ♀ taken - beaten.

Oecanthus juvs. beaten

Nemobius juvs. numerous.

Orchestina seen but not taken.

Orth 26. 30

1936.23 MacGheysville, Rockingham Co., Virginia. Elevation, 1200 feet. Aug. 9, 1936. (Rehn - Rehn).

Mixed deciduous woods and roadside.

Orchestina Adult - woods.

Oecanthus Latipennis 1 juv. stupt.

? Aphis sp. Juv. woods road -

? Empoasca juv. In woods.

Orth. 4

1936. 24. Two miles N. of Swift Run Gap, Sky-Line Drive, Shenandoah National Park, Blue Ridge, Virginia. Elev. 3150 feet. Aug. 9, 1936. (Rehn - Rehn.)
Open slope with low surface cover, thistle, 1 m.l.
Low cumul
Arrhenatherum, 1 tr.
Sphagnum planum Occasional, sh.
Asphondylia sp. Few.
Melanoplus mexicanus. Few adults, multivoltine
2 juvs. apparently of this species.
Encoptolophus n. Aplidia juvs. Numerous.
(Orth. 27)

1936. 25 Bear Fence Mtn., Sky-Line Drive, Shenandoah National Park, Blue Ridge, Virginia. Elev. 3300 feet. Aug. 9, 1936. (Rehn - Rehn.)
Tangled scrub in oak burns, regeneration oak - chestnut, with much fern, thistle, blackberry, locust - seedl.
Nomotettix - (1) dead branch !!
Tettigidea - few - lost in ground.
Sphagnum tolli 1 P in ground.
Melanoplus luridus. Adults infrequent, appar. juvs. of this frequent.
Mel. mexicanus. A few adults. Juvs. of this ? in fair numbers.

Amblycorypha ~~sp.~~ not. 1 ♂ in scrub.
Nemobius fmo. Incal.
Orth. 17

1936.26. Big Meadows near Fisher Gap, Sky-Line Drive, Shenandoah National Park, Blue Ridge, Virginia. Elev. 3450 feet. August 9, 1936. (Rehn and Rehn.)

Bald-like meadows, with bracken, thistle, wild carrot, etc. Corn seldom in sight.

Chorthippus - Numerous. hyl.
Chloealtis - Two - 3 ♂♂.
Melanoplus bivittatus. Two.
" femur-rubrum. Two adults.
" mexicanus. Two adults.
Amblycorypha rotundifolia 1 ♀.
Conocephalus Adult. 2 ♂- juvs.
Abundant.
Nemobius sp. Adults-two-juvs. numerous
Orth. 57

1936.27 Waterloo, Culpeper Co., Virginia. Elev. 600 feet. August 9, 1936. (Rehn + Rehn.)

In old field with scattered pine seedlings, and along adjacent wood edge.

Paratettix tmpt. Old field
Syrbula. In fair numbers adults, also juvs. very active
old field.

1936.27 (cont.)

Cryptolella spicina. Two. in old field
Asphidia sulphurea. Two. "
Hippiscus nigrocinctus. Two - one in clearing
old field.
Melanoplus bivittatus. Two. "
" sp. ♀♀. "
" juvs. ? Scudderia. One in edge
of oak woods in ground.
Amblycorypha alleni. 1 in old field.
Neoconocephalus crepitans. 1 in old field.
Conocephalus strictus? 1 " " "
" sp. Juvs. very abundant
in old field.
Orchelimum vulgare? Two juvs. in old field
Neotibicen sp. Two adults in old
field, many juvs.
Visit 39

1936.28 Walk Springs, Pinellas Co., Florida
Aug. 24, 1936. Klein and Klein.

In open scrub oak woods, on sand, with scattered saw palmetto, low yellow-flowered acacia and numerous small areas of virtually bare sand.

Thespratia, 1♀. beaten
Stagmomantis floridensis ♂+♀ in instar preceding maturity, beaten.

Mansonia tenuicauus ♂ - ♀. In fair nos. but local, beaten entirely. 1♂ 2♀ in one beat.

Neolutlis 1♀ swinging.

Tetti;idea 1♂. "

Radinotaenia - general - common.

Mansonia alacris. Infrequent.

Syrbula "

Micruillia Numerous, active. Females most frequent. 1 unusual color phase taken with white patches on head, pronotum, abdomen + limbs.

Cyptulella "

Amblystropidia Jnvs. only. 1 in instar preceding maturity. Rare.

Landalophora phoenicoptera 1♀ on ground.

Psinidia. Common but local.

Schistocerca damnifica calidior. Local but numerous. Adults. Jnvs.

Schistocerca sp.? Jnvs only.

Melanoplus puer Numerous, active.

" f. propinquus Imal.

Aptenopedes aptera Infrequent. Jnv.

" sphenarioides. One in instar preceding maturity.

Scudderia curvata Two adults.

Odontoxiphidium. Very local.

Conocephalus sp. Jnvs. only.

Orch. agile 1♂ only. Quite small.

Cyclopteluum 3 sps. beaten.

Falcicula 1♀. beaten.

Cyrtoxipha columbiana 1 sp. Beaten.

1936.29 – 3 m. S. of Elfers, Pasco Co., Fla.
(Rehn and Rehn) Aug. 24, 1936.
In open pine, oak + sand pine woods (15-25 feet in height) on sand, with vine frame, acacia etc. Largely on bare sand.

Eurycotis – 2 ♀ under bark on dead pine.
Chaetospectra Caudatta 1 ad. + juv. (latter lost) same.
Manomera few impt.
Neotettix impt from sand.
Radinotatum – as 1936.28
Neoconocephalus alacris. Few. impt.
Syrbula – impt.
Orphulella Few.
Macrotylus Few. As 1936.28
Arphia granulata 1 on ground.
Chortophaga australior Imm. - moderate.
Psinidia – frequent.
Scirtetica – Few.
Pandalophora phoxa. 1 ♀ on ground.
Schist. dan. calidior. Frequent.
" sp.? Juv. In fair number.
Aptenopodes leptea. Local - not common.
Mel. pur. Numerous.
Scudderia texensis 1 ♂.
Orchestrophilus Numerous adult + juv. abundant.
Xiphidium brevip. 1 ♂, 1 ♀ brachy - tegmate
– One impt from sandy ground.

(97) + 133 = total Fla. ♂ 230

1936.30 3 m. & 1 f. Port Richey,
Pasco Co., Fla. Aug. 24, 1936.
(Rehn + Rehn.)

In dune palmetto scrub without tree cover, the woody tech having been burned probably 10 years ago. Shade and tangled. Little bare sand.

Amiomorpha Number of pairs in cotton on saw palmetto.

Radinotarsus few.

Systola. Few adults, tw. juvs.

Mermiria alacris. Few.

Macmillia Few.

Amblytropidia Juvs. not common.

Oxyhubella. Few.

Chinocephalus 1 ♂ only - all tan.

✓ Romalea About 5 ♂♂ singly on ground or on saw palmetto.

Schist. dam. calcd. Not numerous.

" cuatrola? Few.

" alutacea?. Few females, largely on saw palmetto

Gymnocentes. Few ♂ & ♀.

Mel. puer Not common.

Acantherphisma Few.

Arcyptera sp. Juv. Few imm.

(73) + 230 = Fla. Total 303

1936.31 Six miles E. of New Port Richey, Pasco Co., Fla. Aug. 24, 1936. (Rehn - Rehn).

Da pine and oak scrub on sand. Mixed fraoo undergrowth quite heavy. Surface rolling.

Syrbula - few.
Amblytropidia gris. few.
Macneillia. Local - uncommon.
Psinidia. Roadside sand and sand surface bdrs. brush.
Chortophaga sin rudescle - not found.
Melanoplus pun - Not uncommon.
Aptenopedes aptera - } Uncommon.
" sphen. }
Pyrgocorypha gris. Rare.
Neoconocephalus ensiger. 1 juv. rare.

(27) + 303 = Total Fla. of 330

1936.32 Clearwater, Pinellas Co., Fla. Aug. 25, 1936. (Rehn - Rehn)

In open oak woods with much Spanish moss on trees, sand with extensive low area, numerous clumps of saw palmettos. Very dry.

Neoprokia. 1 ♀ - sweeping.
Stagmomantis flor. 1 juv. in Spanish moss.
Mantis Rare except.

Radinotatum Few.

Macmillia Few.

Sphagnum cuspitans. Local - few scm.

Schistmena dawn. calif. ✓ ℓ in saw palmetto.

Melanoplus puer. Several ♂♂ - one taken on ground and in saw palmetto.

Aptenopedes aptera. Few.

Odontoxiphidium - Few.

Neoconocephalus sp. ? In Spanish moss, rept from ground and beaten from palmetto.

Scyllina sp. 1 juv. on ground

(24) + 300 fm Ala Stat of 3 VII 1936.33 Between Oldsmar and Tampa, n. shore of Tampa Bay, Hillsborough Co., Fla. Aug. 25, 1936. (Rehn & Rehn)

In sedge from roadside shallow ditch with a little water, an adjoining dry ditch course and flat second-growth long-leaf pine, with heavy undergrowth of saw palmetto and tangled woody growth.

Stagnum fluid. Numbers of juvs. in water pending maturity - Romping.

Mermonia - 1 ad. 1 juv. Rept.

Neotettix - Several.

Paxilla - 1 juv. in roadside dry ditch
Tettigidea (2 spp.?) In ~~dry~~ ~~but~~ damp but not water-holding roadside ditch - with Paxilla.
Chloealtis - Drain only - few.
Neihamorpha - " " juv.
Eotettix tryiatus. In drain - not numerous.
Melanoplus punctulatus. Very few, in dry woods.
Paratylotropidia atlantica. Adults - juvs. in dry ditch. Not numerous as former.
Romalea - Two in dry drain
Aptenopedes aptera. In dry woods & in drain. Juvs. more numerous than adults.
A. aptera. Same comments.
Schistocerca obscura - 1 ♂ in saw palmetto.
" sp. Juvs. in dry pine woods.
Scudderia sp. 1 ♀ in drain.
Belocephalus Juvs. general.
Neoconocephalus sp. 1 juv. in pine woods.
Conocephalus fasciatus. Few adults, juvs. in fair nos. in dry drains.
Orchelimum gl. General, both ad. adults & juvs.
Neoconocephalus ensiger 2 ♀, dry woods.
Hapithus saltator 1 ♀ brought in woods - 1 ♂ seen but escaped.

(17) + 354 = Ala. total 521

1936.34 Near Tampa, Hillsborough Co, Fla. Aug. 25, 1936. Area of salt marsh along tidal creek on E. side of Tampa Bay.

Tettigidea + Neotettix - Jumps from ground at edge of salt marsh. Few.

Orphulella - Numerous in and along edge of salt marsh. Very dry.

Clinocephalus - numerous, ditto.

Orchrimenha. Very numerous, along edge of marsh, only

Melanoplus ~~f. propinquus~~ plum. - Found along road-side - some quite yellow.

Opeinopeda opheum. On marsh edge. Few.

Scudderia sp. - on edge of salt marsh. Flying actively.

Orchelimum agile - In salt marsh at edge of same.

Conc. paullinus - At edge of marsh.

Conc. fasciatus - Dorsal edge of marsh.

" cepalus (?) Numerous in salt marsh.

Anaxipha sp - Juvt (1) at edge of salt marsh.

92 + 525 = 617

1936.35. Gulfport, Pinellas Co., Fla.
Aug. 25th, 1936. (Rehn & Rehn)
In tall ground cover on damp soil under relatively tall long-leaf pines - large group of saw palmettos.

Stagmomantis flor. 1 juv. erupt.
Thesprotia 1 ♀. 1 juv. & erupt.
Mantoma 10, 2♀ 1 juv. & erupt.
Acanthops 1 erupt.
Radinotatum a few adults, immat. freq.
Mermiria alacris. Not common.
" intertexta More numerous, all adults.
Tmbula. Few.
Amblytropidia. Juv. - subfy - numerous.
Clinocephalus Common.
Schistocerca amer. 1 subad. female very common, flew to trunk of pine tree where I captured it.
S. damnifica = Ad.
Gymnoscirtes. Infrequent.
Scotelleus. Few - but not taken.
Melanoplus punc. Ad. & subfy.
Paroxya atlantica - Adults few, juvs. rather numerous.
Aptenopedes aptera. Few.
" sphenarioides. Abundant, most ad. & subfy.
Scudderia tex. Few.
Conocephalus. Abundant, mostly juv. (123+617=740)

1936.36 9 miles N.E. of New Port Richey, Pasco Co., Fla. Aug. 26, 1936. (Rehn and Rehn)

In open pine ~~woods~~ and oak scrub on sandy loam, with scrub palmetto, scattered low acacia, etc. Some wire grass.

Notaulax · Tettigidea sumptuosa frequent.
Radinotatum. Numerous, few adults.
Syrbula. Few - adults - juvs.
Meminna alacris. Few.
Mermiria - Not common, juvs. more evident than adults.
Amblytropidia. Juvs. only. - numerous.
Orphulella Numerous.
Orphia granulata - One taken - on ground.
Eunidia fea. Few - roadside only.
Schist. dam. calid. Few adults.
" sp. 1 large juv.
Hesperotettix oscula. 1♀ sumptuosa like
Paroxya atlantica very few - one taken.
Mel. puer. Not common.
Aptenopedes ~~Syrbula~~ Syrbula. Numerous, chiefly immature.
" aptera. Few.
Scudderia texensis. 1 adult.

(1936.36 cont.)

Belocephalus jun. Taken dupt.
Odontoxiphidium - Abundant, large no. jun.
Neoconus antithicus. Infrequent, dupt.
Mesopliatid. Imm. f, dupt.
Tabanidae. One dupt.

(99) + 742 = 841 Fla. Stat.

1936.37 Grenfield, Pasco Co., Fla. Aug. 26, 1936
(Rehn and Rehn)

In roadside scrub of palmetto and edge of bay of small cypress seedlings.

Stagmomantis fla. 1 jun. dupt. roadside
Mermiria alacris. One, roadside.
Syrbula. Imm, but not taken.
Orphulella. One, edge of swamp.
Clinocephalus sev. ditto + in swamp.
Amblytropidia Imm. roadside.
Gymnoscirtes Few, along swamp edge.
Melanoplus puer. Few, roadside.
" luridus One adult, in scrub.
Paroxya atl. Imm but not taken.
Aptenopedes aptera + A. sphenarioides. Roadside scrub.
Leptysma One adult + jun. at swamp edge over water on tall grass.
Scudderia cuneata 1 ad. in scrub.

Odontocephalum. In scrub, adults a
Orchid. militare. Imms adults from tall
grass on water.

(35) + 841 = 876 Fla Total.

1936.38 Between Macaryktown and Brooksville, Hernando Co. Fla. Aug. 26, 1936. (Rehn - Rehn.)

In rather moist low oak - pine woods with much sweet gum brush + tall grass. - rather dense.

Mastigus - rarpt

Tettigidea - (2 species ?) - rarpt.

Radinotatum - few, about all juvs.

Chinacephalus - Numerous.

Hlidrammopha - Infrequent.

Eotettix - 1 ♂.

Melanoplus punctulatus 1♀ + sev. juvs.

" puer. juvs - only.

Aptenopedes aptera juvs. - infreq.

" Sphenarium - Adults - juvs - comm.

Odontocephalum - Numerous.

Scudderia - One adult.

Belocephalus. Juvs. frequent.

Xiphidium brip. 1♂ rarpt.

" sp. Juv. juvs.

Neonotus antithesis - One rarpt.

(52) + 876 = 928 Fla total

1936.39. Near Floral City, Citrus Co., Fla.
Aug. 26, 1936. (Rehn - Rehn.)
Dry dry sand scrub of live oak with a few pine, low scrub palmetto and oak scrub. Orth. not abundant.

Latib. ? One juv. empt.
Neotettix Imag. empt from ground.
Radinotatum - Few.
Orphulella - "
Orphia granulata Imag. on ground.
Chortophaga. Few but not taken.
Spharagemon crepitans Few - one in oak brush.
S. collare typ. One, very wild, taken on bare sand.
Psinidia. Imago.
Melanoplus luridus. Few.
" puer. Few.
Aptenopedes sph.. Few.
Hapithus sp. Juvs. only.
(36) + 926 = 962 Fla. Total.

1936.40 3 m. W. of Wildwood, Sumter Co., Fla. Aug. 26, 1936. (Rehn + Rehn.)
In open pine and oak scrub on sand, much bare sand, surface corn chiefly oak brush, one mile grass.
Neoprotia - 1 ♂ in one grass at base of tree.

Mermiria alacris - One rept from oak bush.
Macrocilla in fair nos. - often in ground.
Sabal Sabalitica pitis numerous.
Sphagnum cellare type - Deus - on very sandy spots.
Psinidia - Abundant.
Melanoplus rotundipennis - long leaf, not common, exceedingly active.
Aptenopedes optica. Deus.
Schistocera gino. Deus.
Cedantoxyphidium, Abundant.
Neoconocephalus ambitiosus. - 1♀ in ground.

(69) + 962 = 1031 Fla. Stat

1936.41 St. Catherine, Sumter Co., Fla.
Aug. 26. 1936. (Rehn & Rehn.)

Tall dry oak hammock with edge undergrowth heavy, much ground surface within hammock relatively except for dead leaves. Very little vegetation in hammock, most material taken on roadside under.

Gen. Black oak hammock - rept from ground in hammock
Clinocephalus on border of hammock
Melanoplus ditto.
Sphagnum crepitans One just within hammock

(1936.41 cont.)

Schistrura lugubris. Plucked along
 [illegible] of hammock.

Melanoplus rotundipennis (?) very few in
 hammock and in edge.

Aptenopedes aptera } Hammock
" sphenarioides } [illegible] on
 road.

Neonotus ambitiosus - Fem. in hammock
 and in [illegible] along road.

(31) + 1031 = 1062 Fla. Fla. sp.

1936.42 San Antonio, Pasco Co., Florida.
 August 26, 1936. (Rehn and Rehn.)
Open pine and oak scrub, little surface
 cover, much bare sand & with fairly
 dead oak leaves.

Mermiria alacris. Fem. sp.
Syrbula [illegible] (Fem. sp. indet.) (Nymphs
Conocephalus [illegible]. [illegible]
Melanoplus [illegible].
Paratylotropidia [illegible].
Schistocerca [illegible].

Aphanogmus cupitus. Fem. sp.
Melanoplus rotundip. Entirely pale.
" luridus. "
Aptenopedes sphenarioides - Not abundant.
Amblycorypha [illegible] only, in moss.

Adontoxyphidium Nunnenum.

Amnigyllus Am. juv. rept in undo.

Nemobius antit. Local. in ground

Kapithus sp. 1 juv. in litter

preceding maturity dupt in undo.

(61) + 1062 = 1123 Fla. Total

1936.43 Pass-a-grille Key, Pinellas Co., Fla. Aug. 27, 1936. (Rehn + Rehn.)

Beach dunes with sea grape, sea oats, scattered palmetto, tall bush grass etc. Dry little mat.

Mermiria intertexta. 1 ♀ taken, 18 nem, frmm from sea grape.

Schistocerca americana 1 ad. ♂ - dry wild.

" sp. Juv.

Scudderia. Few.

Paratrichidia. Few.

Adontoxyphidium. Very few.

(9) + 1123 = 1132 Fla. Total.

1936.44 Indian Rocks (mainland side of Indian Key), Pinellas Co., Florida. August 27, 1936. (Rehn - Rehn.)

In open long-leaf pine woods, partly cut out, undergrowth dwarf oak (fully grown with acorns), with heavy wire-grass stands and sand palmetto clumps.

Juv. mantid - dupt.

(1936.44 cont.)

Anisomorpha - 1 pair on saw palmetto.
Neotettix - One swept.
Radinotatum - Not numerous.
Neminia alacris. - Numerous.
Syrbula. Few.
Orphulella. Roadside
Amblytropidia fem. only.
Aphia granulata - One on ground.
Schistocera amer. - One on fine grass.
" damnifica - Numerous.
Gymnoscirtites - Few, swept.
Melanoplus puer - Infrequent.
" luridus. - One fem.
Aptenopedes aptera - Numerous.
Odontxiphidium - Not common.
Napithus sp. fem. - swept.
Neonotus ambit. - One fem. swept.
(59) + 1132 = 1191 Fla. total.

1936.45. Same as 1936.44 but habitat different.

In hill woods with scattered shin oak and saw palmetto clumps, under open & relatively tall oak and pine.

Manomera – 1♂ swept.
Murmira alacris – Few.
Macrillia – Few.
Aphia granulata – One
Melanoplus pur – Infrequent.
Scudderia – One adult.
Microcentrum (?). 1 Nov. – swept.
Orchtoxiphidium – Not common

(13) + 1191 = 1204 Fla. Total

1936.46 Plant City, Hillsborough Co., Fla.
Sept. 1, 1936. (Rehn + Rehn.)
Roadside tall grass + weeds, and rather open, low pine + oak woods, with, in places, chiefly of with, wire grass, low thin oak brush and few saw palmettos.

Thinoptria 2♀ swept.
Manomera 1♂, 2♀ swept.
Nomotettix ♀ swept.
Neotettix ♂ "
Radinotettix Few.
Murmira alacris Few.
Eyprepocnemis Few.
Conocephalus 1 juv.
Amblytropidia 1 juv.
~~Aphia gran~~ 1 roadside.
Orphulella

(1936.46 cont.)

Pandalophora 1 in bar pond

Aplia ? 1 juv.

Scirtetica 1 in pond

Schistocua dam. cal. 1 except.

Melanoplus puer Not common.

" luridus 1 my pen - 1 ♀ taken.

" propinquus Roadside.

Ceptenopedes aptera Pen.

" ephem. Pen.

Bilocephalus Num. juv. - roadside.

Admtroxiphidium Funeral.

Conocephalus sp. Roadside.

Hapithus Trev. 1 ♂ swept.

(57) + 1204 = 1263 Fla. Flas.

1936.47 Auburndale, Polk Co., Fla.
Sept. 1, 1936. (Rehn - Rehn.)
Roadside damp ditch with cane grass, and adjacent open l. l. pine woods with rather heavy undergrowth.

Mamnera 1 ♂ swept in woods.

Neotettix - abundant in ditch and also numerous in woods

Tettigidea - Hotels.

Radinotatum - Frequent - mostly juvs.

Syrbula. Numerous in woods.
Mermiria alacris. " " "
Clinocephalus Frog. in both ditch & woods.
Orphulella Frog. in ditch - few in woods.
Melanoplus Abundant in ditch -
mostly jun.
Amblytropidia Few jun. in woods.
Orphia One in woods in ground.
Romalea Jun singly in woods & in
ditch
Schistocerca alutacea. Numerous in woods,
flying up on pine finally
when disturbed
S. obscura calidus - Infrequent in woods.
Hippiscus tuberculatus Rare in woods.
Estettix One Leaf in woods.
Melanoplus puer. Frequent - Leaf.
Paroxya - Few in ditch - jun. also ten.
Aptenopedes aptera - Leaf in woods.
" sphen. " " "
Belocephalus. Jun. - Locally common
Adontoxiphidium - Abundant.
Conocephalus sp. - Leaf - not common
Neoconocephalus ambitiosus. In ditch - few
" exiliscanus One in ditch

(1936.47 cont.)

Microgyllus pins in ditch.
Hapithus brevip. 2 ♂, locally in woods.
Tridactylus minutus Rau in ditch.
(233) + 1263 = 1496 Fla. Stat.

1936.48 Homeland, Polk Co., Fla. Sept. 1. 1936.
(about 5 miles N. of Mtn. Lake and in central elevated district.)
Open cut-over pine woods with their oak scrub; tall grass and sl. tan gray-green herbaceous plant in little clumps. Latter about 2 feet high.

Stagmomantis sp. 1 juv. nymph.
Mantomera 1 ♂ nymph.
Anisomorpha 1 pair nymph.
Radinotatum Caudum.
Meminia alacris. Scud.
Syrbula Rau.
Amblytropidia Lee. juv.
Aphidella - Rau.
Aphis fab. 1 on funnel
Schistocera dam. Caud. Rau.
Melanoplus luridus Fitzpatr.
" F. propinquus "
" pun. Rau - Scud.

Apteropedes aplia Fmp. (sp.?).
Leaf-mummers, finally in the silvery gray plant.
Estettia Fem - Leaf.
Sanddinia 2 species - both in low bush
Amblycorypha uhleri 1♂ impt.
Bilineophalus 3 adult ♂♂ - fine. mummers.
(111) + 1496 = 1607 Pla. Hstaf.

1936.49 Near Lake ~~Alfred~~ Garfield Polk Co., Fla. Sept. 11, 1936. (Rehn & Rehn.)
Roadside ditch with shallow water & tall grass & weeds; adjacent damp open, cut-over S. C. pine woods.
Stagmomantis jun. Along ditch.
Mancmera 1♂ impt in weedy grassy corn.
Radinotatum - Not common.
Clinophalus Numerous but leaf-
Gymnoscirtes. Abundant in weeds along ditch as usual.
Romalea - Numerous - one mated pair along ditch.
Schistocera damer. 2 fifth along ditch - numerous third fourth.

(1936.49 cont.):

Schistnema sp. Juv. ditto.
(Saw S. obscura but lost it.)

Aptenopedes sph. Frgment.

Estellus Numerous along ditch.

Paroxya - 1 along ditch.

Scudderia - Imaf along ditch.

Belocephalus - Juv. along ditch.

Orchelimum agile. Juv. along ditch -
closure, but one Fem.

O. militare. One taken along ditch -
Others seen but any closure.

Conocephalus sp. Juv. along ditch

Atlanticophidium - Imaf.

(93 + 160) = 1)00 Fla. Fly.

1936.50 Two miles South of Sebring, Highlands Co., Fla. Sept. 2, 1936. (Rehn - Rehn)

In oak scrub of cut out oak - pine, scrub hardly more than 12 feet high at most, on sand, bare in considerable areas. Ground cover saw palmetto, oak brush + Imaf shrubs, with much wire grass.

Jnv. black blattid. Beaten

Mauromma ? Brachypyga numerous in sub & ind.
All beaten.

Rudinotatum. Common adults & jnvs.

Asphalda, Alm along roadside.

Mamillia Not numerous as adults, jnvs. more common.

Asphia fran. Am found in sand.

Chortophaga australis Sand-roadside.

Scirtetica marm. pictā Am sandy fine lane.

Pandalophora phoenicoptera. Beaten.

Romalea Walking about in meadow.

Schistocerca sp. Jnvs. - a few.

Melanoplus - two short-winged species.
Few of each - very diff. to capture.

M. cuneatus. Seen only as adults.

Aptenopedes nigropictus - 1♂ and ♀♀ in sand.

A. aptera? Seen.

Scudderia texensis. ♂-♀ beaten.

Xiphidium brunjo. 3♂ beaten.

(70) + 1700 = 1770 Sp. Total.

1936-51 Childs, Highlands Co., Fla.
Sept. 2, 1936. (Palm-Palm.)

In very dense and tangled oak & palmetto scrub with thin shrubs and deep tangled undergrass, under scattered remnants of tall pine forest, on sandy loam. The undergrass made work very difficult by entangling the ~~feet~~ feet. A few damp spots without palmetto or oak made nothing. Very difficult terrain to work, and with but a limited number of specimens of Lepidoptera.

Agamomantis 1♀ Sept. 1 juv. Ranging "on guard" from a Dipnoost twig of a thin fox brush.

Rhodinotatum. Common.

Chiocephalus One Sept.

Melanoplus pun Group. Some very hard to find. 2♂ 1 sw. ♀.

Leptysmopsides sphen. Infrequent.

" infroquitor. Very few - 1♂ taken in two hours.

" aptera Group. Few - very difficult to capture.

Neoconocephalus osceola. 1 Sept from corn.

Schistocerca cratera. Two Sept from saw palmetto

Schistocerca dum. caliduc ♂ Dum palmetto
also.
" americana. Dum but escaped.
" obscura " " "
Gymnocentrus. Locally numerous.
Bliscophalus 16 Palm Dum palmetto.
Conocephalus fasc. Pine.
Orchelimum. Funeral.
Xiphidium brevip. 1♂ Dumpt.
" sp. 1 juv Dumpt.
Neoconocephalus ensiger. 1♀ Dumpt.

(33) + 1770 = 1825

1936.52 Bonita Springs, Lee Co., Florida.
Sept. 4, 1936. (Rehn-Rehn.)

In wet quite open slash pine woods, culled of most of the Cargo trees, undergrowth a coarse tall wire grass + saw palmetto. Very little material evident.

Neotettix. 1 nymph from ground.
Tettigidea Common on wet ground.
Chloealtis 1♀ Dumpt.
Leptysma 1 adult juv. Dumpt.
Paratylotropidia paroxyrida. 1♀ Dumpt.
Scudderia texensis. 1♂, 1♀.

(1936. J2 cont.)

Archidiscus concinnus Frageant - mun. juv.

(31) + 1825 = 1856 Fla. Total.

1936. J3 Achopee, Collier Co., Fla.
(Situated about 10 m. E. of N.E. of Everglades.)
September 4, 1936. (Palm and Palm.)

On small relatively dried spots of coquina rocks - mere knobs about pond glades flood level, with scant cover of slash pine palmetto - saw palmetto, little grass - sedges. Very little cut. evident.

Stagnicola floridana 18 on sedges. F.

Notellus - numerous on ground.

Climacephalus - 1 recent.

Carinulella 1 juv. recent.

Ancylus - Ferrissia sp. clara. Infrequent, one few adults.

Paravya ath. paraxyrides. Fwd.

Archidiscus militaris. Very few - shy and difficult to capture.

(25) + 1856 = 1881 Fla. Total.

1936.84 Fort Lauderdale, Broward Co., Florida. Sept. 5, 1936. (Kahn and Kahn.)
Low scrub of thin oak and saw palmetto under scattered slash pine, thinned out. Soil sand, many spots bare, some wire grass. Ins also dense in roadside damp ditch, with short grass and bare wet soil.

Juv. mantid swept from scrub.
Neotettix - very few in dry land.
Paratettix rugosus
Tettigidea
Paxilla juv.
} in roadside damp ditch
Rudinotatum - female.
Mucillia. Few in scrub.
Cyphobella - Few in ditch.
Dichromorpha - in roadside ditch only.
Amblytropidia - 2 in instar preceding maturity in scrub.
Chortophaga - in roadside ditch only.
Pardalophora phoenicoptera - in scrub on bare ground.
Schistocera amer. Numerous in scrub - usually rested on palmetto scrub.
Melanoplus puer group - Infrequent in scrub.
Aptenopedes aptera group - Occasional in scrub - adults - juvs.
Adenoxyphidium - Frequent.

(1936. sts cont.)

Conocephalus sp. One ♂ in ditch.

Hapithus sp. One juv. swept from scrub.

(82) + 1881 = 1963 Fla. total.

1936. ♂♂ Juno, Palm Beach Co., Fla.
Sept. 5, 1936. (Rehn and Rehn.)

Coast beach sand dunes connected with dense scrub palmetto, sea-grape, rosemary (?) and other shrubs, with sandspur along road. Orthoptera exceedingly scarce and difficult to secure, the scrub being shoulder high in most places and hard to penetrate, while beating was practically only in the more open patches. Much of this scrub is undoubtedly sea-spray soaked in storms.

Radinotatum - a few.

Orphulella - one adult + 1 juv. taken in scrub.

Chortophaga - Few along roadside.

Melanoplus luridus - Seen but lost.

" punctipennis. ♀♀ only - scarce.
Juvs. ♂ taken.

Aptinopides sph. clara very few.

" aptera nymphs - a few adults ♂♀ but no adult ♂♂ seen.

Lea floridanum - 1 ♀ taken clinging to saw palmetto leaf.

(12) + 1963 = 1975 Fla. total.

1936.56 Micco, Brevard Co., Fla.
Sept. 5, 1936. (Rehn + Rehn).

Scrub edge bordering Indian River and road-side salt grass.

Asphondylia - 1 in short roadside salt grass.
Schistocerca amer. 1 fm f scrub.
Melanoplus femur-rubrum propin. - in roadside salt grass.
Conocephalus sp. - roadside salt grass
(4) + 1975 = Fla. Fitaf. 1979

1936.57 Sampson, St. Johns Co., Florida.
September 6, 1936. (Rehn + Rehn.)

In vine grass, scrub palmetto and thin-oak under a near scattered long-leaf pine. Surface dry except for damp roadside ditch + hollows in brush.

Anisomorpha - 3 pairs on saw palmetto.
Radinotatum - only a few small juvs.
Clinocephalus - 1 fragment.
Orphulella - 2 juvs.
Syrbula - 1 ♂ only.
Amblytropidia - 1 juv.
Aphria gram. Two sum, one Fahn-
Chortophaga - Simal.

(1936. V-) cont.)

Schistocerca alutacea. - Numerous, when
obs at rest usually on sabal palmetto.

Gymnocinetus - Not common.

Melanoplus rotundip. Few.

" luridus. Few. ♀♀.

" fem. prop. Few.

Aptenopides apt. fr. 1 ♀ + juv. Rare.

" typhon. Infrequent.

Odontoxiphidium. Few.

Conocephalus sp. One only.

(62) + 1979 = 2041

1936. V-8 About five miles S. of Riceboro,
Liberty Co., Georgia. Sept. 6, 1936.
(Rehn & Rehn.)

In open long-leaf pine woods with
relatively tall undergr. of turkey
feather, golden rod, ~~[illegible]~~,
wild carrot, etc. Also on
roadside drain with shallow
standing water.

Stagmomantis juv. One nymph.

Neoconocephalus - In roadside ditch.

Acmostictus - Gr ground in undo.
Radinotatum. Juv - very young.
Asphalilla. Occasional.
Amblytropidia - ~~Ec~~ Juv - juvs. only.
Clinocephalus - Occas. in undo as well as ditch.
Aphis. - Fem. scattered.
Schistocera sp. Juvs. frequent.
Gryllotalpa hexadactyla - Fem. in undo.
Melanoplus attenuatus sp. - fem. and adults fem. than juvs.
Both Colo phases.
Aptenopedes aptera. fr. 18 ad. in undo.
Amblycorypha f. floridana 1♀ - undo.
Belocephalus 1 juv. ♀ - tmpt in undo.
Gryllus sp. 1 juv.
Orchamus sp. 1 juv - tmpt.
Phyllopsyrtus pulchellus 1♀ tmpt.

(70) + 2041 = 2111 Pla. Hop
BZ

1937

1937. 1 Clayton, Hendricks Co., Indiana.
July 8, 1937. (W. Rehn - Pate). Collected at lights about road cabin at night.
Others 203

1937. 2 Columbia, Boone Co., Missouri.
~~Boone~~ July 9, 1937. (W. Rehn - Pate.)
Collected at lights about road cabin at night. 18 Parcoblatta resting on leaf of shrub under light
(Alder) Others 39 + 203 = ~~238~~ 242
Orth. 1.

1937. 3 Salina, Saline Co., Kansas.
July 10, 1937. (W. Rehn - Pate.)
Collected at light about auto camp cabin.
1 Hieroglyphus Longipennis - all nymphs.
1 immat. Gryllulus. 1 Orphulella.
1 Mel. bivittatus.
Orth. 4 + 1 = 5
Others insects 102 + 242 = 344

1937. 4 Raton Pass, Colfax Co., New Mexico.
Elev. 7600 feet. July 12, 1937 (R. R. - Pate).
In scrub oak ground cover about 2 feet high, and white sage - open bare ground along highway.
Eremobia gutis common, both phases, no juvs.
Cnid. U. cumulata fem. 1 ad. - 1 juv. taken on ground.
Aeropedellus fem, ♂ + ♀ taken. Took refuge in grass..

Psolmosa delicatula. Two - all adults.
On ground.

Aphis fricida Type - 1 ♀ only Fabian -
all dem. On open ground.

Rhopalosiphum fraxinifoliae Two - on Fabian, near
road.

Myzus sp. Three immature.

Macrosiphum h. haydeni One Fabian - all
dem.

Trin. coerulipes One only - among
oak sand.

Mel. dammi Many - Most winged, but
few. ~~Fabian~~ In oak sand.

Mel. altiond. Type. One ♀ D near
oak sand - all dem.

Mel. multicauda. Two. 2 ♂ Fabian.

Nasonovia ribis-nigri. 1 ♀, 1 ♂ imm. on
yellow flowered composite about 1
foot high.

With. 30 + √ = 31√

Without. 14 + 344 = 358

1937. √ Clifton House, Colfax County, New
Mexico. Elev. 6355 feet. July 12, 1937.
(R. R. & Pate).

Short grass open plain with a few
bushes of tall vegetation and roadside
sunflowers along ditch drains.

Endtil. cumulata. Numerous on
ground, some jars

1937 June 5

Apus. Dne juv. only seen + taken. Very numerous.
Cord. occipitalis. Less frequent than C.
cumulata. Also as found.
Phytalestrana quadrin. In fair numbers,
both sexes. Juvs. also.
Aulacana Illisti: Two.
Drepanopt. fumatinum Many juvs. ♂ + ♀ taken.
Portrosa delicatula ♂. " " - all seen
taken.
Trimstr. Latifasc. Occasional, most
females
Spharagnon aequale Typic. A few juvs.
only.
Hadrotettix Both sexes adult seen, and taken.
Some juvs. - one taken.
Melanoplus punct. 1♀ only seen and taken.
Xanthippus corallipes 1♂ only seen + taken.
Dissosteira Longipennis. A few scattered
ones seen, none taken, exceedingly wild.
Arcyptera kiowa. Very common.
Derotmema t. haydeni. Quite common.
Brachystola A number in the tundra
and in roadside ditch. All in immature
both sexes taken. Seen + Encamphacra

Dactylotum picturn Common in the short grass areas, juvs. + adults together.

Adolphus plagosus (?) / D. tahun. - all rare.

Campylacantha sp. Juvs only. Initially all rare taken.

Melanophus packardi Common in tall weeds and sunflowers & roadside ditch - males dominant.

" M. borditchi Rare in same situation.

" mexicanus In males - ditch. Not dominant.

" flabellifer type. Numerous in short grass areas.

" sp.? (apparently 2 sp.) In tall grass females + ditch.

Orthoptera 185 + 35 = 220

Other ins. 36 + ±358 = 394

1937.6 Ratan, Colfax Co., New Mex.
Elev. 6868 feet. July 12, 1937.
(R. R. + Pate).
In adobe walls in town.

Sphaagnum. All rare (2)

Boopedon nubilum 1 juv. all rare.

1937.6 (cont.)

Mel. bisulcatus. Very common adults - juvs.

Mel. femur-rubrum (pictus phase). Numerous - about half seen taken.

Mel. mexicanus 1 ♀ - all seen taken.

Mel. flabellifer type. Three taken - nearly all ♂ those seen.

Meth. 18 + 220 = 238

Other ins. {Hymenopt. 90 + 394 ##} = 5.10

1937.7 Vermejo, Colfax Co., New Mexico. Elev. 6334 feet (aver.). (R. & R. + Pate) July 13, 1937. Melrido along roadside on open eastern N.M. plains. Melilotus alba (white sweet clover) blossoms. Scarab running on road pavement.

Meth. 0 + 238 = 238

Other ins. 30 + 179 = 179

1937.8 Ute Park, Cimarron Canyon, Colfax Co., New Mexico. Elev. (aver.) 7900 feet. July 13, 1937. (R. & R. + Pate.) Grassy glades near Cimarron Creek under douglas fir and aspen, among low hillocks, in oak scrub, etc.

Mel. dodgei pinp. 2 ♂, 1 ♀. - All seen, and all taken singly. Males in lush vegetation, ♀ in oak scrub. Mantispa imp. from

lush vegetation. Hymenoptera taken on flowers.

Orth. 3 + 238 = 241
Other nos. 61 + 549 = 610

1937. 9 Rio Grande Canyon at mouth of Rio Lucero, Taos County, New Mexico. Elev. 6275 feet. July 13, 1937. (R. & R. Pate.)
Sandy wash areas, apparently disturbed by man, with cholla and sage.

Trim. pallidipennis Numerous.
1 Odont. G. haydeni seen but escaped.

Orth. 7 + 241 = 248
Other nos. 25 + 610 = 635

1937. 10 Between Santa Clara and Pojoaque, Santa Fé County, New Mexico. Elev. 6025 feet. July 13, 1937. (R. R. Pate.)
Adobe slopes (gradual) with numerous gullys, with some of low rabbitbrush and very short sage. Strong wind.

Neoprotettix in fair numbers in rabbit brush.

Cordillacris occipit. flav in bare adobe,
" crenulata. " " " "

Paropomala. 1 ad. & 1 juv., ~~on adobe probably~~

1937.10 (cont.) Qu on any shnt grass tufts. A brown phase individual shn but lost.

Mest. platei. 2 taken, 1 other shn, on adobe.

Trimerotropis texana. Imm. Qu two adobe. ~~Ad shnd~~ Imm other shn.

Trimerotropis sparsa. Qu, on adobe, all shn.

Litaneutria 1 juv. running on ground.

Orth. 25 + 248 = 273
Other ins. 6 + 635 = 641

1937.11 Isleta, Bernalillo Co., New Mexico
Elev. 4860 feet. July 16, 1937. (R. R. Pate)

Qu low sandy adobe dune-like areas with gray Ephedra-like bush and low rabbit brush composite.

Hesperotettix excedingly common in former bush, many mated. Sexes about equally common. Qu Plagiostira & Taken low down near ground on center of one bush one other shn. ← This specimen displayed the black wing pattern of Arphia

Arphia Arcyoptera albobalteata Imm. only infrequent in rabbit wd.

Melanoplus herbaceus moderately numerous in both shrub, active.

Cordillacris on bare sandy adobe, very active.

Melanoplus aridus fem on shingle near road,

Litanetria Occ. beaten out of rabbit mud.
Stagnomantis Just. " " " " " "
Trimerotropis texana Uncommon on bare sandy adobe.
" pallidipennis Occ. few, ditto.
Paropsmala Impt.

Cents. 103 + 273 = 376
Other ins. 113 + 641 = 754

1937.12 Suwanee, Valencia Co., New Mexico. Elev. 5330 feet. July 16, 1937.
(R. R. - Pate)

Short grass, low rabbit mud and a few sparsely Atriplex on nearly bare ground.

Few. Litanetria beaten.
Pseudocaenyle 2 ♂ with Impt from rabbit mud.
Conocephalus capitatus Occ. on bare ground (adult).
C. emarginata. Ditto.
Psolessa delicatula Few, on ground.
Paropsmala few in short grass.
Trim. pallidipennis Occ.
Leptysmatus medius One ♀, in ratio all lean. ad —
Melanoplus sp. One juv.
Dactylotum variegatum. Occasional on ground.

1937.12 (cont.)

Orth 30 + ~~376~~ 376 = 406

Other ins. 42 + 754 = 796

1937.13 Thoreau, McKinley Co., New Mexico. Elev. 7500 feet. July 16, 1937. Late afternoon - evening. (R. R. - Pate)

Park-like pinon & juniper (chiefly latter) with low sage & short grass, some rabbit weed & ~~tumble~~ tumbleweed rather sandy. ~~Some at light, the~~ Cordillacris occ crenulata on ground.

Meloid on road. Tridactyloids on ground under tumbleweed.

Orth. 3 + 406 = 409

Other ins. 10 + 796 = 806

1937.14 Same. Attracted to light after dark.

Orth. 0 + 409 = 409

Other ins. 20 + 806 = 826

1937.15. Same as 1937.13 but July 17, 1937. Am. mts.

Cordillacris crem. in fair number.

Hesperotettix 1 ad., 1 ♀ · all brev.

Psoloessa delicatula. 3 brev. all taken.

Trimerotr. pallidipennis. 5 males, one taken.

Trimerotr. tricolorata type. 1 juv. only seen - taken.

Miscell. small insects taken on spider plant which was abundant in small patches.

Arth. 11 + 409 = 420.
Other ins. 661 + 826 = 1487

1937.16 Pass east of Powell Mtn., 8 m. N.E. of Thoreau, McKinley Co., New Mexico. July 17, 1937. Elev. 7800 feet. (R.R.-Pate)
Juniper and pinyon with my short glass and two rabbit nets. Only Orthoptera was Cnidillacris crex. which was very infrequent. Beating pinyon and juniper produced only one specimen of same genus.

Arth. 4 + ~~427~~ 420 = ~~431~~ 424
Other ins. 25 + 1487 = 1512

1937.17 Canyon on north side of Satan Pass, about 7 miles S. of Crown Point, McKinley Co., New Mexico. Elev. 7100 feet. July 17, 1937. (R.R.-Pate.)
Canyon floor with two rabbit nets, scattered clumps of spider plant and occasionally junipers. Walls cliffs topped by many juniper stands.

(1937. 17 cont.) Cnailliacus occipit. & C. cumulata. Both on sandy adobe. Xanthippus crallipes one ♀ on ground, sandy adobe - all one. Neopusillus very common on rabbit mud. Melanoplus luteanus grasp very few, on rabbit mud. Psolessa delic. few on ground. Pseudocentyle 3 males beaten from rabbit mud.

Orth. 48 + 424 = 472

Other ins. 300 + 1512 = 1812

1937. 18 Three miles north of Crow Point, McKinley Co., New Mexico. Elev. 6800 feet. July 17, 1937. (R. R. Pate.) Single Melanoplus fled in car.

Orth. 1 + 472 = 473

1937. 19 Camp in canyon on north side of Satan Pass, between Thoreau and Crow Point, McKinley Co., N. Mex. Elev. 7800 feet. July 17, 1937. (R. R. Pate.) At night at light. Plagiostira 1 ♀ in low grass clump on ground under one car.

Orth. 1 + 473 = 474

Other ins. 94 + 1812 = 1906

1937. 20. Alamillo, 3 m. N. of Polvadera, Socorro Co., New Mexico. Elev. 4600 feet. July 20, 1937. (R. R. - Pate).

Low bunches back from the Rio Grande (east side) with mesquite, creosote bush, rabbit weed and a stunted Atriplex. Parabuillea. 1 ♀ erupt from rabbit weed. Perognathus flexuosa. One on base adobe - all sexes. Bootettix argentatus. Very few - in creosote. Trimerotropis texana. One on adobe - all sexes. " pallidipennis. Few. Acoloplus One on mesquite twig. - none others seen after extensive search. Akeloplus. 2 adults - one green, one gray brown - and 1 juv. beaten from creosote bush.

Orth. 11 + 474 = 485
Other ins. 96 + 1906 = 2002

1937. 21 Magdalena, Socorro Co., New Mexico. Elev. 6650 feet. July 20, 1937. (R. R. Pate.)

Bench plain of low rabbit weed, a few tumble weed and dotted with juniper. Pseudocreagyla in tall rabbit weed along wash.

cont. 1937.21) Psoloessa delicatula very few on bare gravelly dirt.
Trimicta. pallida. Ditto.
Crustacea sp. Inv. inapt from rabbit mud.
Arth. 5 + 485 = 490
Other ins. 552 + 2002 = 2554

1937.22 Hatch Canyon, Hatch Range, Catron Co., New Mexico. Elev. 7800 feet. July 20, 1937. (R. R. Pate)

Gyalecta, Parabacillus. Few rabbit mud-2 males taken.
Epitettix variabilis Not common - with types taken on flat of canyon flat.
Psoloessa delicatula. Fairly common on sage covered flat.
Trimicta pallida type. One only, on sage flat.
Mestobregma capitata aspersum? Uncommon on sage flat.
Phymatites sp. One male on pine slope.
Melanoplus arideus type. Infrequent - with habitats.
Melanoplus - other short-winged species. Rather

side, pine mesa flat and rabbit mud, slopes timbered with wild pine. Canyon draining northward.

common - both habitats. Many juv. Female adults outnumbering males. Moderately active.

Orth. 60 + +90 = ~~547~~ 550
Other ins 175 + 2554 = 2729

1937.23 Same as 1937.22 but at Eagle.

Orth. 0 + 550 = 550
Other ins. 102 + 2729 = 2831

1937.24 Same as 1937.22 but Thurs. July 21, 1937.

Same data except ~~the~~ shot-mixed Agenestettix fed in dust press under edge of spruces on slope. Paratettix in Ephydra-like bush.

Orth. 89 + 550 = 639
Other ins. 25 + 2831 = 2856

1937.25 Pie Town, Catron Co., New Mexico. Elev. 7700 feet. July 21, 1937. (R.R.-Pate.)

Park-like juniper and pinon country with grama cover & low sage(?) and rabbit and bunch brush. No orth.

Orth. 0 + 639 = 639
Other ins. 25 + 2856 = 2881

1937.26 Six miles east of Juemado, Catron Co., New Mexico. Elev. 7300 feet. July 21, 1937. (R. R. Pate.)

Comm low sage (?) and rabbit wd. Plain, heavily ingraged by sheep. No orthoptera. All the insects except from spider plant.

Orth. 0 + 639 = 639

Other ins. + 2881 =

1937.27 Canyon in bench margin north of Juemado, Catron Co., New Mexico. Elev. 7525 feet. July 21, 1937. (R. R. Pate.)

Slopes of lava bench with juniper and pinon. Canyon floor flat with rabbit wd and short grass thru. heavily graged down. No orthoptera etc. Trim. pallidipennis see but not taken.

Orth. 0 + 639 = 639

Other ins. 12 + 2881 = 2893

1937.28 Red Hill, Catron Co., New Mexico. 25 m. W. of Juemado. But a short distance east of the Arizona line. Elev. 7560 feet. July 21, 1937. (R. R. Pate.)

Ground comm of very low sage(?), very short grass and rabbit wd, but with surface bare in places with pavement of small red pebbles and fragments of volcanic rock.

Helianda rufa not uncommon, adults and juvs. adult ♂♂ much scarcer than ♀♀. On red pebbly patches only. Very sluggish.

Cordillacris crenulata Common and very active.

Psoloessa delicatula " " " "

Xanthippus corallipes One, in low cane, all seen.

Hadrotettix trifasciatus One only - on red shingle.

Trimerotr. pallidipennis. Seen but not taken.

Yersinia. One swept from low rabbit weed.

Hesperotettix. 1 adult only. 1 juv. In rabbit weed.

Tiphia abundant of thistle.

Pulverro on thistle.

Orth. 35 + 639 = 694

Other ins. 30 + 2893 = 2,923

1937.29 Camp 25 m. N.W. of Springerville, Apache Co., ~~New Mexico~~ Arizona. (Not far from the town of Vernon.) Elev. 6,25 feet. July 21, 1937. (R. R. Pate) Taken at light at night. Rolling low stream plain, west of low hill group N.W. of Springerville. Scattered juniper & plant grass, rabbit

1937. 29
(cont.)

wild and numerous forming annuals.
Soil washed bare - dull reddish in
dry, spread to washed stone in
reddish soil.

Actb. 1 + 6/4 = 6/5.
Ithu radius 30 + 2923 = 2953

1,937. 30. Same as 1937. 29 but sun.
July 22, 1937.
Araneia - small in short grass - jumping
very decidedly.
Pelabreillus - in short grass, all sun taken.
Centetix - very few, very active.
Agenoteltix short-winged. - not uncommon
very active.
Podisca sp. Few.
Anoscua elista. Uncommon, sluggish,
in thin clear, in grass tufts preferred.
Lycosa emora - In open ground - all sun
Microbrigma platkei type. - Not uncommon,
on ground as usual.
Trinerotropis montriola. Few - all sun taken.
" pallidipennis. Few.
Dissosteira sp. One seen last.
Melanoplus flabellifer type. Numerous but
mate scarce.

Melanoplus aridus type. A few on ground near grass tufts.

Orth. 36 + 695 = 731
Other ins. 130 + 2953 = 3083

1937.31 Four miles S. W. of Show Low, Navajo County, Arizona. Elev. 6270 feet. July 21, 1937. (R. K. Pate.)

Rather open forest of Pinus and a second species of the same genus. Floor litter largely pine needles.

Tranzschelia - in sparse grass of forest floor.
Melanoplus
Hesperotettix aridus in grass-ground, locally numerous in forest floor trash, this mainly dead pine needles. Males and ♀♀. Dist. our taxon.
Dictyopteris - fr. & ♂. ♀ imm. few.
Orth. 22 + 73 = 95
Other ins. 16 + 3083 = 3099

1937.32 Pinus Ponderosa Canyon, Show Low - Holbrook Road, Gila County, Arizona. Elev. 4775 feet. July 22, 1937.
Juniper and pinyon on hill slopes, with few yuccas, cholla, grass, etc. Ground color red-dumped lava.
Urabida Impt from grass.
Uromyces Impt from grass.
Melanoplus platei fr. On bare red ground.

1937.32
(cont.)

Cordillanthus - Un bur-red ground.

Trim. pallidus. " " " " Dw.

Arch. 18 + 753 = 771

Athamas. 16 + ~~3083~~ = ~~3099~~
3099 3115

1937.33 Natural Plateau, near Chrysotile, N.W. of Globe, Gila County, Arizona. Elev. 5100 feet. July 22, 1937. (R. R. - Pate).

Northern margin of plateau at top of road grade from Salt River crossing (Little 2600 feet). Park-like juniper and pinon country, with ground cover of rabbit mud, short grass, low mimosa and similar growth. Soil reddish pebbles. Protective resemblance of certain Arch. spp. remarkable.

Gravina Nimmo, active. Annual. On Kyppo Fahm. On ground.

Stagnimantis jun. Swept from Lagune and rabbit mud, Cantrillus, imag. all females. On grass. Ephia ? jun. In grass, along with Paratrella

Agnostattix R. w. common, on grass, & leaf.

Podisoma delic. Scarce, on ground.

" texana " " "

Trichiosoma p. subspinosum Local but common, on ground.

Subspinosum & subspinosum single always on ground.

Podisoma pallidipennis common but single, one very dark in the Kanpsville common. on ground.

Melanopus ♂. Two only. on ground.

Fem. rare. Roadside.

Dissosteira ♂. Very numerous in rabbit mud.

Hackylotrum variegatum. Local but not uncommon — on ground

Arcyptera ♂. Fem. only uncommon, adults scarce.

Orth. 143 + 771 = 914 in rabbit mud.

Other ins. 18 + 3099 = 3117

1937.34 Pinto Creek near Roosevelt Reservoir, Gila Co., Ariz.

Elev. 3150 feet. July 22, 1937.

1937. 34 (cont.) (R. R. - Pate.)

Typical Sonoran desert environment of acacia, holly oak, all spine (Koeberlinia) Atriplex, numerous Nolina, a few rabbit mid., with almost no ground cover.

Schistocerca rhodiana on holly oak.
Limat. melanoplids eating Nolina flowers.
Camnula
Lyngicornes on oak.

1937. 35 Same at night. All taken attracted to light exc. Capnobotes (2) which were located by flash in oak.

Orth.	6	+ 921	= 927
Other ins.	35	+ 3119	= 3154

Orth. 7 + 914 = 921
Other ins. 2 + 3117 = 3119

1937. 36 Same as 1937. 34 but dam. July 23.
Pseudocaenyle sp. 2 ♂ dupt.
Parabacillus 1 juv. dupt.
Stagmomantis juv. 1 dupt.
Psoloessa tex. Numerous on bare ground.
Agenotettix juv. only one.
Paropomala sp. One adult + 1 juv. in Grass.
Conozoa carinata Numerous on bare ground.
Trimerotropis pallidipennis. Juv. but not taken

~~Tamiastropis pallidus~~

Heliaotus aridus. Numerous.

Merotmesa sp. One juv. on ground.

Melanoplus luteanus type. One adult in cracks.

Cnaliaea. One pair in nolina. All ten.

Capnobotes. Seen in Oak but escaped.

Atelopleus sp. Several taken about camp on equipment.

Arth. 41 + 927 = 968

Other ins. 13 + 3154 = 3167

1937. 37. Mat side of Roosevelt Reservoir, Salt River, Maricopa Co., Arizona. Elev. 2250 feet. July 23, 1937. (R. R. Pate.)

Mount hill slopes with rabbit wood, hush acacia, and Atriplex cane, with scattered tobacco and other low cacti, little earth.

Tomonotus aztecus. On bare ground

Trimerotropis pallip. Few.

Hesperotettix. On rabbit wood.

Psoloessa texana. On ground.

Arth. 8 + 968 = 976

Other ins. 24 + 3167 = 3191

1937.38 Valley of Wild Rye Creek, town Tonto Basin, Gila County, Arizona. Elev. 3000 feet. July 23, 1937. (R.-R.-Pate.)

Heavily overgrazed - low tree cover palo verde, cotol, Cobrelinia, etc.

Psoloeosa. Few, on ground.

Paropsmala. " " "

Trimerotropis pallidip. Few. Nothing else found. A stop to cool off motor

Orth. 4 + 976 = 980

Other ins. 2 + 3191 = 3193

1937.39 Tonto Basin betw. Rye and Payson, Gila Co, Arizona. Elev. 4000 feet. July 23, 1937. (R.. R.- Pate.)

Slopes with short grass, bush grass, prickly pear Opuntia, rabbit weed and scattered acacia.

Parabacillus unpt.

Cndillacris cru. Common on ground.

Psoloeosa. Numerous on ground.

Paropsmala In bush grass.

Mastobrunna subrip. A few on ground.

Rehnita gracilipes. One in grass clump.

Syrbula fraternata. Ad. + juvs. in bush grass.

Xanthippus coralliper. Few on bare ground - dry.

Pimeotropis pallidipes. Com.

Tomostus agilis. Com. on ground.

Neoprosthetis in rabbit mud.

(A drop 5 cent moth engine.)

Arth. 37 + 980 = 1017

Other ins. 6 + 3193 = 3199

1937.40 Payson, Gila Co., Arizona.

(Camp 3 m. N.-E.) Elev: 5700 feet.

July 23, 1937. At light at night exc. as noted. Camp in dense stand of juniper and pine, with much manzanita in low cover. Ground decomposed reddish. Conalcara taken from manzanita with flash light from camp.

Arth. 1 + 1017 = 1018

Other ins. 108 + 3199 = 3207

1937.41 Same as 1937.40 but am. July 24.

Helicodus aridus. Numerous on bare ground.

Trimerotropis praedana type. Few, ditto.

Ateloplus - sitting on equipment in morning. camp.

Arth. 18 + 1018 = 1036

Other ins. 13 + 3207 = 3220

1937.42 Strawberry, Gila Co., Arizona.
Elev. 5900 feet. July 24, 1937. (R. R. Patch).
Open pine and oak woods with grassy glades. Ground surface largely broken reddish granite. Glades surface grassy.
Trin. modesta frequent. Few on stony areas and in dead oak leaves. Protectively colored.
Agelena sp. 1 specimen only - in grass in glade.
Chiracanthium inc. about timber refuse in glade.
Orth. 8 ♂ + 1036 = 1044
Other inv. 535 + 3220 = 3755

1937.43 Coconino National Forest, 12 miles North of Long Valley (betw. Strawberry and Mormon Lake), Coconino Co., Arizona.
Elev. 7550 feet. July 24, 1937. (R. R. Patch).
Bull pine and oak forest on broken land. Ground covered with patches of sweet fern.
Litaneutria sp. 1 ♀ in log builder.
Circotettix coconino - 1 ♂ in log builder.

Trim. modesta group. Two, on lava boulders.

Agenotettix sh.-winged. Rare, on lava boulders. very active.

Melanoplus mexicanus-nigrum. Rare in scattered grass tufts.

Orth. 11 + 1044 = 1055

Other ins. 3 + 3705 = 3708

1937.44 Mormon Lake, Coconino Co., Arizona. Elev. 7200 feet. July 24, 1937

Slopes bordering lake composed of lava boulders and clothed with pine, oak and numerous annuals. Lake shore with tall grass and tufts of tall bunch grass scattered among the lava fragments of the slopes.

Xiphidiopsis short-winged. 1 ♂ taken on surface of lava boulders.

Amphitornus sp. Quite numerous on and among lava boulders and in the tufts of grass bkw. some. Active but not jumping great distances.

♂♀ tendency toward brachypterism.

Agenotettix sh.-winged 2 ♂ ♂, nearly all nymphs, among lava boulders — very active.

V

Trimerotropis suberata typ. Numerous ~~among~~ in boulders.

Circotettix occiduus. Female, one taken on Lava boulders.

Hesperotettix viridis. Numerous, taking refuge in the rabbit weed.

Melanoplus allied to viridus. Numerous, but less so than following species. Males less evident, and more active, than females.

Melanoplus femur-rubrum. Abundant, over the entire slope studied. Moderately active.

Stenobothrus sp. 1 female, spread not running itself on a lava boulder. Taken.

Orth. 108 + 1044 = 1152
Other ins. 37 + 3758 = 3795

1937. 45 Flagstaff, Coconino Co., Arizona. Elev. 6907 feet. July 25. 1937. (R. R. Pate.) Taken on flowers and vacant lots in town.

Orth. 0 + 1152 = 1152.
Other ins. 25 + 3795 = 3820

1937. 46 Red Lake, Coconino Co., Arizona. Elev. 6450 feet. July 25, 1937. (R. R. Pate.) Playa lake with areas of bare soil apparently quite alkaline. Common rabbit weed and

humble mud, with some low sprawling salt bush like mato.

Cnidillacris cruc. One on bare ground - all sun.

Dissosteira One ad. numerous juvs. on bare ground.

Mestobregma kiowa One adult and a few juvs. on bare ground.

Trimerotropis modesta. Imad on ground.

Dissosteira carolina One on bare ground.

Hesperotettix juv. One on rabbit mud.

Melanoplus - a short-winged species, two last seen.

Melanoplus sp. One female of a longer winged species.

Arphia juvs. A number on rabbit mud.

Orth. 27 + 1152 = 1179

Other ins. 48 + 3820 = 3868

1937. 47 Tusayan, Coconino Co., Arizona. Elev. 6600 feet. July 25, 1937. (R. R. Pate)

Open pine forest with rabbit mud, Great Basin sage and occasional patches of wild mustard along roadside. Bare patches of lava underlying soil in pine woods.

1937-47 (cont.) Litaneutria ♂ juv. running on ground.

Agnesiotettix ♂ ♀ nymph. Found on ground in forest between rabbit mud.

Podisma dilicatula ♂ ♀ adult, on ground.

Cordillacris crenulata. ♂ ♀ adult mud.

Trimerotropis montivola. ♂ ♀ found on bare ground.

Trim. pallidipennis. ♂ ♀.

" gracilis. ♂ ♀ Locally numerous on ground between sage. Flight erratic.

Circotettix carinus. ♂ ♀. ♂ ♀ found only.

Melanoplus femur-rufum type. Local, not common.

Melanoplus viridus type. Local, on desert. Flea-like in its activity.

Hesperotettix ♂ adult except from rabbit mud.

Arethaea ♂ ♀. Taken separately from mustard.

Acrolophus ♂ ♀ on mustard.

Orth. 52 + 1179 = 1231

Other sp. 337 + 3864 = 4201

1937.48 Tuba City, Coconino Co., Arizona. Elev. 4300 feet. July 26, 1937. (R. R. - Pate)

Painted Desert country of red adobe with low mesas of red shale. Most mat. taken at night.

Transeptr. pallidus. on adobe. light at night.

Arth. 1 + 1231 = 1232.

Cothurnia 45 + 4205 = 4250

1937.49 Same as 1937.48 but dur. of July 27, 1937. (Pate).

On mustard.

Arth. 0 + 1232 = 1232.

Cothurnia 25 + 4210 = 4275

1937.50 11 Miles E. of Moenkopi; toward Kaibito, Coconino Co., Arizona. Elev. 5200 feet. July 27, 1937. (R. R. - Pate.)

Rolling plateau, top of mesa surface reddish adobe weathered from Painted Desert red shale. Corn-patches of Ephedra, some sun-cured low bunch grass, & scattered yucca and tumbleweed.

Parabrillus. Sand swept from grass.

Pseudoscorpio. Both sexes in bunch grass and yucca.

Cordillacris. On bare ground. Note protection color resemblance.

Portacris delicatula - One adult male only seen.

(cont. 1937.VI)

Trimerotr. bifidata. Scarce, on ground.

" pallidip. Few.

Xanthippus corallipes. Occasional. Solitary.

Melanoplus sp. ♀♀ only taken - fins. in Ephydra and tumbleweed. No ♂♂ seen.

Paropsmala. Several in brush grass.

Hesperotettix sp. 1 seen - lost.

Plagiostira 3 (♂♂), taken singly in yucca, tumbleweed and brush grass (1 from one).

Arth. 45 + 1232 = 1277

Other ins. 90 + 4275 = 4365

1937.VI Kiamo Canyon, Navajo Co., Arizona. Elev. 6000 feet. July 27, 1937. (R. R. Pate.) Attracted to light at night.

Arth. 0 + 1277 = 1277

Other ins. 1 + 4365 = 4366

1937.VI-2 Kiamo Canyon, Navajo Co., Arizona. Elev. 6000 feet. July 28, 1937. (R. R. Pate)

Beating & sweeping along narrow patches of canyon floor bttw. wash and steep slopes. Some true adobe, but most covered with tumbleweed and rabbit weed - a little prickly pear.

T. tri. pallidip. Fem.

Cnidil. capitalis. A single specimen on ground, Odum. No other Cnidoplectes connect fitting rain off and on for eighteen hours.

Host. 6 + 1277 = 1283

Other ins, 63 + 4366 = 4429

1937.53 Jeddito, seven miles S. E. of Keam's Canyon, Navajo Co., Arizona. Elev. 5925 ft. July 19, 1937. (R. R. Pate.)

Mesa top with rabbit wood, ~~roof~~ mason & juniper wood and areas of bare adobe.

Pseudoserrycle. 1 ♂ swept from rabbit wood.

Agamotettix 1 on bare adobe - all dem.

Cnidillacris occ. on bare adobe.

Trimerotr. bicolorata On bare adobe.

" pallidip. Occas. on bare adobe.

Neopsolettix. Very few, on rabbit wood.

Melanoplus sp. Females only dem. Taken from rabbit wood.

Host. 16 + 1283 = 1299

Other ins. 88 + 4429 = 4517

1937. V7. Twin Buttes, near Indian Well, Navajo Co., Arizona. Elev. 5500 ft. July 29, 1937. (R. R. Pate.)

Gutted slope of Adobe, with tumbleweed, bunchgrass and rabbit weed. Sometimes of badly washed and gullied adobe.

Ritteniella sp. One male, dupt.

Pseudocerungle. 3 ♂. All dupt from rabbit weed and bunchgrass.

Sadillenis. 1 ♂ on the ground.

Trimerotropis pallidip. Com but not taken.

Paroxyuela. Scarce in bunchgrass.

Hesperotettix. Very scarce in bunchgrass - one all sum (taken).

Melanoplus luteanus type. One male all sum - dupt.

With. 17 + 1299 = 1316

Within sin. 131 + 4517 = 4648

1937. V7 Padre Canyon, 8 m. E. of Winona, Coconino Co., Arizona. Elev. 6000 feet. July 30, 1937. (R. R. Pate.)

Eastern edge of Coconino plateau forest belt. Open park-like juniper country.

ground stem with broken linear fragments, clothed sparsely with scattered bunchgrass, rabbit weed and knotweed.

Pseudocercosporella. 200 spots from bunchgrass.

Parabasidium. 1 p. ditto.

Protoscypha delic. Common on ground.

Cystidiaria occys. ditto.

Helotium caudens. ditto.

Trimmatostroma red-tinged. Not common on ground.

Trimmatostroma pallidipes. Rare.

Hemisphaeria sp. Scarce on rabbit weed.

One pin taken.

Birds. 43 + 1316 = 1359

Other an. 9 + 4648 = 4657

1937.06 Maine, Oroino Co., Anjou. Elev. 7250 feet. July 00, 1937. (R. R. Pate.)

Open bull pine forest with ground cover of tall mullein, white aster, yellow flowered rabbit weed, thistle and bunchgrass on broken reddish lava

(cont. 1937. J6)

fragments and matured residual trif of same.

Ulmus. Immature on bare ground.

Amphitornus. Few on tall bunch grass - no immature.

Aphis jims. Few on bare ground.

Trimerotropis, red-legged modesta type.

Not common on bare low rocky or residual trif of same.

Circotettix carnino. Few on bare rocky trif.

Melanoplus femur-rufum. Locally common on white aster, bunch grass and rabbit mad.

Melanoplus viridus. Few - ditto.

" bivittatus. Few - Local on bunch grass.

Orth. 46 + 1307 = 1405

other ins. 33 + 4657 = 4690

1937. J7 Sacramento Valley, 10 miles N.W. of Kingman, Mohave Co., Arizona. Elev. 3100 feet. July 31, 1937. (R. R. + Pate.)

Nearly flat valley ~~#~~ surface, with gentle slope to east from Cerbat Range on east. Acacia, ephydra, desert-shrub weed and scattered bunchgrass.

Pseudosemyle 3 ♂, 1 ♀. On ephydra or similar plant of stick-like character.

Agnesiotettix. Abundant on ground and in various low bushes. Modestly active.

Cordillacris. Uncommon on bare ground.

Hesperotettix viridis. Numerous on bare ground.

Trimerotropis thomasi. Numerous on bare ground.

Trimerotropis pallidipennis. Few.

Paropomala pallida. Numerous in ephydra and other shrubs.

Poecilotettix sanguinarius. Numerous, in many hosts, adults appearing abundantly during late afternoon & dusk.

Melanoplus viridus. Common, very active, in various hosts.

[cont. 1937.51)

Melanoplus bromii typ. 1 ♂ only dam. Antiss. chiefly in fair-sized bush.

Brunoides gracilis. 1 ♂, two tubes (3 ♀), about four dozen males, spindle dining low down among roots & rubbish.

Orth. 106 + 1405 = 1511

Other ins 6 + 40,90 = 4696

1937.58 Sqnaw Wash, Detrital Valley, Mohave Co., Arizona. Elev. 2675 feet. July 31, 1937. (R. R. Pate.)

One sparse low sun-cured bunch grass, with scattered Covillea. Very dry. Almost no Orthoptera.

Paroponala. One on grass.

Ireana covilleae. 1 juv. dumped from Covillea.

Orth. 2 + 1511 = 1513

Other ins. 7 + 4696 = 4703

1937.59 Erie, Clark Co., Nevada. Elev. 3122 feet. Aug. 1. 1937. (R. R. Pate.)

Grass betw. Bird Spring Mts and shoulder of Black

Nitu. Bench of eroded limestone fragments + lava splinters. Corillea, two-cured grass and humble mud.

Bostellia infrequent in Corillea, 2 adults, other immature.

Lignotettix. Common in Corillea on branches and as usual hard to secure. Female taken.

Tettigotyle. One, sitting on rock fragment.

Eumastax pallidipennis. Two - one taken.

Orth. 10 + 1511 = 1521
Other orders 9 + 4696 = 4705

1937.60 Lake View, Iron Peak Mts., San Bernardino Co., California - Elev. 3550 feet. Aug. 1, 1937. (R. R. Pate.)

Eastern slopes of shingle, with Corillea and yucca.

Ritchenia - one seen but escaped.

Pseudocentrotype. One but lost.

Bostellia punctatus. Few adults, occ. fem. On Corillea etc. one on yucca.

Eumastax pallida. Numerous.

Lignotettix. Few, beaten from Corillea.

Eumastax Texas type. One only.

Tettigotyle. One only, on rock.

Melanoplus viridus. Few, on ground.

Paropomala pallida. One female, on twig, probably dead.

(cont.)
1937.00)

Perilestites pusillimus - Am on Cuilla.

All ours.

Ireana cuillae - Am adult, rept from Cuilla.

Arth. 18 + 1521 = 1539
Other vis. 12 + 4705 = 4717

1937.01 Yucca Grove, N. E. of Baker, Soda Lake, San Bernardino Co., California. Elev. 2100 feet. Aug. 1, 1937. (R. C. Fate.)

Sonora rubrolut with stripes of ornata and stricklandi.

Lizards:

Dipsosaurus dorsalis. Heard, not taken.

Heliaster aridus. Not uncommon on ground.

Uma notata palmeri. Not uncommon.

Cnemidophorus tigris. Heard, one - not taken.

Crotalus cerastes. Heard, males taken - one testes and one fem yucca.

Arthropods:

Arth. 14 + 1539 = 1553
Other vis. 6 + 4717 = 4723

1937.02 Yucca, San Bernardino Co., California. Elev. 2050 feet. Aug. 1, 1937. (R. C. Fate.)

Open stand Corillea. Sun cured bunch grass and Lupus and dead Salicornia stems.

Pentachaeta ± ?, not ? Lupidia Pond, Trimorphopis pallidipes. Rare.

Merostemma delicatulum. Abu in sun-dried bunch grass.

Ivania corillae Abu juv. in Corillea.

Verb. 6 + 1553 = 1559

Other in. 2 + 4723 = 4725

1937.63 Near Hinckley, San Bernardino Co., Cal. Elev. 2275 feet. Aug. 1, 1937. (R. R.-Pate) At light at night.

Verb. 0 + 1137 = 1137

Other in. 132 + 4720 = 4857

1937.64 Seven miles N. of Barnes Junction, San Bernardino Co., Cal. Elev. 2830 feet. August 2, 1937. (R. R.-Pate.)

Atriplex - Corillea (Cattle, frequent) on marly Lupus ground

Bostellia. Not uncommon on Corillea.

Rigiotettix. Numerous in ditto.

Trimorthopis pallidipes. Not uncommon

Cont. 1937.64

Trimerotropis albolineata type. Single specimen on bare adobe.

Melanoplus delicatulum. Local + scarce on bare adobe.

Bryodemella on Corillea - beaten.

Orth. 18 + 1559 = 1577

Other ins 8 + 4857 = 4865

1937.65. Brown, Kern Co., California. Elev. 2394 feet. August 2, 1937. (R. R. Pate.)

Very sterile + sandy ground flat, with scattered Corillea, low Atriplex + annual species and similar very hot bare Sonoran cover. Temperature high and sun very strong. Wk done btw. noon and one P.M.

Melanoplus delicatulum. Not uncommon in low bushes and on ground. Very active.

Melanoplus arideus. Infrequent.

" minimus Few, very active, in low bushes + also on ground.

Bootettix. Two in Corillea.

Figuratettix. Seen + heard but not taken.

1 juv. katydid. Beaten from Corillea.

Orth. 3 + 1577 = 1580

Other ins. 20 + 4865 = 4885

1937.66 Round Station Reservoir, Owens Valley, Inyo Co., California. Elev. 3600 feet. August 2, 1937. (R. R. - Pate.)

Corilla dead & moth ♂ ♀, end of Owens valley. Many Corilla - little else, very little Orthoptera.

Bootettix. Two on Corilla.

Lignotettix. Heard, not taken.

Derotmema delicatulum. Uncommon on ground almost entirely.

Tusana Corillae. One imp♂ from Corilla.

Orth. 3 + 1580 = 1583.

Coleop. 3 + 4885 = 4888

1937.67 Independence, Owens Valley, Inyo Co., California. Elev. 4200 feet. August 2, 1937. (R. R. & Pate.)

Atriplex flat on floor of Owens Valley.

Cicloplus on Atriplex - not uncommon, but difficult to secure.

Melanoplus Lubricus typ, one only, on Atriplex.

Trimerotropis sp. One on Encelia,

Anoplodera sanguinicollis - One female flushed several times from Atriplex,

(cont. 1937.67)
Taken by hand from same plant. Hid in same swing trips. Red very much like a Solidissima.

Arth. 5 + 1583 = 1588.
Other ins. 0 + 4888 = 4888

1937.68 Aberdeen, Inyo Co., California Elev. 4125 feet. Aug. 2, 1937. (R. R. - Pate.) Old fields, running water - cottonwoods - tumble weed. etc.

Conops - common.
Arcantha - from tall weeds.
Arth. 5 + 1588 = 1593
Other ins 5 + 4888 = 4893

1937.69. Same as 1937.68 but attracted to light at night. Acolopus.
Arth. 61 + 1593 = 1654
Other ins. 198 + 4893 = 5091

1937.70 Same as 1937.68 but Aug. 3, 1937. Old fields with tall weeds and tumble weed about camp & stream.
Conops common on bare ground.
Melanoplus luteacus type - common in tall weeds.
Nesperostetes - one single specimen, all alone in tall weeds.

Orth. 28 + 1594 = 1622
Lettuce nos. 5 + 5091 = 5096

1937.71 Sherwin Hill, 5 m. N. of Round Valley, Mono Co., California. Elev. 5500 feet. August 3, 1937. (R. R. Pate.)

Slopes of fragmented lava (light colored) with sage, atriplex and rabbitbrush.

Trimerotropis strenua jr. Infragmentals on ground.

Trimerotropis small species with green legs. Adults.

Trimerotropis coerulescens One on lava among lava fragments.

Melanoplus sage species. Not uncommon in sage.

Leprus sp. Two taken and turned them on rocks.

Melanoplus sage species. Not uncommon in sage.

Acrolophus sp. 1 seen but lost.

Neopanstella short-winged. One only taken from rabbitbrush.

Orth. 16 + 1622 = 1638
Lettuce nos 2 + 5096 = 5098

1937.72 Flat on Meadows Creek, tributary of upper Owens River, Mono Co., California. Elev. 7450 feet. August 3, 1937. (R. R. Pate.)

Mountain flat of low sage, surrounded by forests of tall pine.

Cordillacris affinis: Occasional in ground, taking refuge in sage.

Platyblattinus sp. a single one on ground, ex tussock under rotted log.

Trimerotropis cowlesi. Two on ground.

Orth. 9 + 1638 = 1647

Other ins. 0 + 5098 = 5098

1937.73. Mono Lake P. O., Mono Lake, Mono Co., Cal. Elev. 6440 feet. Aug. 3, 1937. (R. R. Pate.) At light at night except as noted.

Nuttalli jun. in cabin in late afternoon.

Orth. 1 + 1647 = 1648

Other ins 72 + 5098 = 5170

1937.74 As 1937.73 but Aug. August 4, 1937. Slopes down to Lake shore where undisturbed in sage, but areas are abandoned alfalfa. Juniperus high up on slopes.

Conozoa vallula. Abundant everywhere.
Melanoplus devastator. Ditto in alfalfa and tumble mud.
Camnula in limited grass areas in fair no.
Aulocara elliotti. One strikingly marked, taken on ground between sage.

Orth. 65 + 1648 = 1713
Athetesa 65 + 5170 = 5235

1937.75 Leaning Rock Canyon, Mono Co., California. Elev. 8500 feet. Aug. 4, 1937. (R. R. + Pate.)
Steep canyon slopes with granite boulders and low shrubbery.
No Orthoptera taken, but Cicadettix over meadows.

Orth 0 + 1713 = 1713
Athetesa inc. 27 + 5235 = 5262

1937.76 Silver Lake, upper Leaning Rock, Mono Co., California. Elev. 9125 feet. Aug. 4, 1937 (R. R. + Pate.)
Hudsonian zone slopes with fine, loose surface largely broken and decomposed granite - same as 75.
Melanoplus - one only in low sage.
Xanthippus ficus. One in grass on lake shore.

(1937.76 cont.)

Circolittex agnescens. Infrequent on rocks - one taken.

Orth. 5 + 1713 = 1718
Other inc. 28 + 0262 = 0290

1937.77 Tioga Pass, Tuolumne Co., California. Elevation, 9941 feet. August 4, 1937. (R.R.-Pate.) Sloping alpine meadow, leading up to Pinnacle. Melanoplus mexicanus (?) 1♀ adult and very abundant juvs.

Camnula pellucida. Juvs. Local.

Orth. 1♀ + 1718 = 1739
Other inc 23 + 5240 = 5313

1937.78 Tenaya Lake, Yosemite Nat. Park, California. Elevation, 8100 feet. August 4, 1937. (R.R.-Pate.) Hudsonian zone moist and small glades surrounding lake.

Orth. 0 + 1739 = 1739
Other orders 5 + 5313 = 5318

1937.79 Mirror Lake, Yosemite Nat. Park, Cal. Elev. 4082 feet. Aug. 5. (R.R.-Pate.) Sweeping about lake shore, on moist and tall grass. Almost nothing.

1 juv. Tettigid.

Orth. 1 + 1738 = 1738
Other ins. 17 + 5318 = 5335

1937.80 Yosemite, Yosemite Valley, Y. N. P., Cal. Aug. 5, 1937. (R. R. Pate.)
At light at camp.

Arth. 0 + 1738 = 1738
Other inc. 5 + 5335 = 5340

1937.81 Mariposa Grove of Big Trees, Yosemite National Park, Cal. Elev. 6600 feet. Aug. 6, 1937. (R. R. Pate.)
Under tegmina and fric, ground with limited low cover and litter of cones, needles and bark fragments of tegmina and fric.
Tmerotropis fallax group. Rare. No other Arth.

Arth. 2 + 1738 = 1740
Other inc. 40 + 5340 = 5380

1937.82 Wawona, Mariposa Co., Cal. Elev. 4500 feet. Aug. 6, 1937. (R. R. Pate.)
Dense mats of finely lacinate leaf litter over brown and under pines. Coll. point two hundred feet above settlement.
Melanoplus Inchii Type. 4♂ in the mud.
" Sh. w. group. 8 Aug 8, 2♂ in ditto.

(Cont. 1937.82)

Neduba sierranus. Two females in tow-mud. Not particularly active.

Acanthus sp. Juvs. only. Numerous. Impt from tow-mud.

Arth. 15 + 1740 = 1755

Other ins. 2 + 5380 = 5382

1937.83 Same locality as 1937.82 but elev. 4090 at Merced River Crossing.

Open pine woods, with very thin undercover except along stream-sides, where there was much wild mint.

Melanoplus brachii typ. 1♀ on ground.

Trimerotropis sp. One (Immat.?) on ground.

Arth. 4 + 1755 = 1759

Other ins. 28 + 5382 = 5410

1937.84 El Portal, Mariposa Co., California. Elev. 1850 feet. Aug. 7, 1937. (R. R. & Pate.)

Narrow valley floor of Merced River. with park-like oaks and pines, manzanita and other shrubbery, ground cover chiefly sun-cured grass and much tall tow-mud.

Sphagnum cenustrum. Surface on bare road.

Melanoplus devastator. Abundant in tar weed.

Mel. pale short-winged species. Not uncommon in same (##), make my stance.

Mel. darker sh. w. species. Rare in same.

Dissosteira Thoracine phase "carinata". In country resting in tar weed, when disturbed flying up into sky.

Scudderia sp. Jan. One beaten from tar weed.

Clinoplena. Not uncommon on tar weed, resting on the stems and leaf petioles. Very active when disturbed.

Acrid 53 + 1759 = 1812

Letter ins. 35 + 5410 = 5445

1937.85 Four miles ~~so~~ west of Mariposa, Mariposa Co., California Elev. 2100 feet. August 7, 1937. (R. R. Pate.)

Short sun-cured yellow grass on broken shale fragments. Some shallow washes with

(cont. 1937. 85)

large rock fragments. Tall Corn low scattered pines, oaks and clumps of chamise and manzanita.

Trimerotropis thalassica. One only - on ground.

Trim. caerulipes. One only - on ground.

Sphagemon venustum. A few, also on ground.

Melanoplus dissectus. Roadside - numerous.

Orth. 9 + 1812 = 1821.

Other ins. 90 + 5745 = ~~5743~~ 5535

1937. 86. Mountainhouse Creek, below Altamont, Alameda Co., California. Elev. 340 feet. August 8, 1937. (R. R. Pate.)

Short sun-cured oat-like grass on blackish soil, damp sink depression in creek bed with sedge area, also bare ground and salt grass in other spots.

Orphulella in salt grass. Mostly juv.

Amphitornus in sedge and salt grass. Red.

Eupnigosodes. One in bare ground. Extensive search revealed no others.

Cannula pellucida. In run-and grass, sedge and salt grass - numerous.

Trepidulus hyalinus. Relatively numerous, in short grass and on bare ground. Not particularly active, crouching and lying close. Protectively colored and difficult to locate in emergence.

Ellipsoptera spurcata. Two on bare ground - very strong flying.

Melanoplus devastator. General - in fair numbers.

Melanoplus differentialis. Numerous in sedges. All with red caudal tibiae and tarsi with one general reddish suffusion.

II.

Limnothopis pallidipennis. A single individual, matching exactly Hatch's description in which it natural.

Paratalictus. One ♀ in salt grass.

Cicindela 6. vicina (?) One specimen in sedge.

Hatch. 60 + 1821 = 1881

Other nos. 29 + 5535 = 5564

1937.87 Palomares Creek, above Haywards, Alameda Co., California. Elev. 400 feet. August 8, 1937. (R. R. + Pate.)

Roadside bush with surface cover short sun-cured grass. Step slopes with oaks and eucalypti.

Sphaerog. punctatum. Two in background and along road border.

Oecanthus Beaten.

Melanoplus sp. w. spurs. Beaten from bush.

With. 15 + 1881 = 1896

Other ins. 21 + 1564 = 1585

1937.88 Langley Canyon, Gabilan Range, betw. Betabel and Prunedale, Monterey Co., California. Elev. 250 feet. Aug. 10, 1937. (R. R. + Pate.)

PRUNEDALE

Roadside weeds in full thicky thistle-like bush and dry tall yellow sun-cured grass.

Trimerotropis juv. on road.

Melanoplus Inchi type. 1 ♂, Amyot on weeds and grass.

Cammula – dead in spider web.
Melanoplus dawsoni. Common.
" short-winged species. Relatively abundant in tall grass and weeds, and in dead eucalyptus leaf litter in ground.
Neopsolithus sp. (K.W.) (1 taken in weeds & tall grass. 3 taken, one grass phase, two brown) ... Deficita balli Hebard 1928.
Dactinid fam. + sp.? One ♂, taken in tall grass and quite active, but came only after pursuit for some time. Ran rounded grass more than half height of stalk. If run and escaped often can't chase, diving down to the roots of the grass.
Cimpliella sp. Fem. Two taken, one taken in tall grass.
Decanthus sp. Small nymph.

Orth. 59 + 1896 = 1,955
Others inc. 19 + 5585 = 5604

1937.89 Greenfield, Monterey Co., California. Elev. 340 feet. August 11, 1937. (K.C.-Patty.) Almost everything cultivated for many miles. Narrow roadside strip of dun-cured yellow grass, with a few tall weeds and scattered

(cont. 1937.89)

yellow poppies.

Short-winged Melanoplus. Abundant in all com.

Large Melanoplus. 1♀ only, in short yellow grass.

Trimerotropis sp. 2, on ground under yellow grass.

Orth. 31 + 1955 = 1986

Other ins. 260 + 5604 = 5864

1937.90 San Lucas, Monterey Co., California. Elev. 400 feet. August 11, 1937. (R. R. + Pete) Flat plain of Salinas River, a short and large type of sun-cured yellow grass, with a few scattered oaks and other trees reaching to 10 or 15 feet in height.

Xiphidiidae 1♂, 1♀, taken separately, prob.

Conocephalus, 1 leaf in taller grass, very active.

Melanoplus short-winged. Abundant.

" bowditchi group (? two species). Very local, not uncommon, hiding and down near the roots of the taller grass.

Melanoplus long-winged. 10 taken, all seen.

Orth. 34 + 1986 = 2020
Other inv. 2 + 5864 = 5866

1937.91 San Miguel, San Luis Obispo Co., California. Elev. 620 feet. Aug. 11, 1937.

Roadside area, with short sun-cured grass and scattered wild Iguana Chumpo.

~~Orth~~

Poaceae n. sp. One in short grass.

Trimerotropis pallidipennis. Two but not taken.

Spharagemon variabile. One seen but not taken.

Melanoplus Eedalonotus enigma. Two in short grass.

" " longi-cinctus sp. Two in grass.

" " punctatus. Two, general.

Tropidola ? Seen but not taken

Orth. 8 + 2020 = 2028
Other inv. 2 + 5866 = 5868

1937.92 Santa Maria River crossing betw. Nipomo and Santa Maria, San Luis Obispo Co. [just to N. of line], California
U.S. 101 Bus. Co.
Elev. 200 feet. Aug. 11, 1937. (R. R. + Pate)

(cont. 1937.92)

Pasture of tall sun-dried grass and scattered trees. Roadside also.

Acanthus. Found in trees - & tridentata (4.30.37.)

Onagra biennis. Abundant in sand in wash.

Parkinsonia Long-winged. In grass.

Birds. 7 + 2028 = 2035

Other ins. 1 + 5868 = 5869

1937.93 Solomon Canyon, 12 m. S.W. of Santa Maria, Santa Barbara Co., California. Elev. 900 feet. Aug. 12, 1937. (R. R. Pate.)

Tall sun-cured oat-like grass, a tall yellow-flowered weed (not a radist weed) and almost completely dried bur weed. Slopes with tree cover spotty and at higher levels.

Melanoplus devastator. Found - abundant.

Neoconocephalus short-winged species. Usually numerous in yellow-flowered weed.

Camnula. Two in short grass.

Trimerotropis pallidipennis - One, on roadside.

Blattidae. Two taken, all nymphs. In fringes of dead stems - very active and difficult to secure.

Scudderia three - all flew from yellow-flowered weeds.

Quantus. Swept in all cases.

Orth. 40 + 2035 = 2075

Other ins. 26 + 5869 = 5895

1937.94 Zaca, Santa Barbara Co., California. Elev. 900 feet. August 12, 1937. (R. M. K. & Pate.)

Hill slope with sun-cured yellow grass, scattered oaks, a few patches of dull green foliaged low brush.

Litaneutria. ♂ 1 juv. Swept.

Amphitornus. One ♀ on bare ground.

Melanoplus sp.-w. One specimen in grass.

Melanoplus bowditchi type. Uncommon in low cover, near oak shade.

Melanoplus devastator. 6 Everywhere.

Hesperotettix sp.-w. Several taken - very few seen.

Mantidae. One male seen and taken. One ♀ escaped in grass tussocks and dry stems nearby, not far from oaks.

Orth. 2075 + 26 = 2101

Other ins. 0 + 5895 = 5895

1937.95 Las Cruces, Santa Inez Mts., above Gaviota, Santa Barbara Co., California. Elev. 320 feet. Aug. 12, 1937. (R. K. & Pate.)

Hill slopes with sun-cured yellow grass, scattered bushes, during

(Cont. 1937.95)

thistle-like plants, and dotted with oaks.
Sphaeromm ornatum. One pair and
pruned.
Melanoplus devastator. Abundant.
" brevis typ. One & hopping
in ground under grass.
Work. 9 + 2101 = 2110
Other ins. 9 + 5895 = 5904

1937.96 Punta, Ventura Co., California.
Sea-cliff. August 12, 1937. (R. R. + Pate)
Ocean beach-sand, under hill slope,
some and flecks beach plant drainage
debris of pumpkin and stones, and two
mats of a coarse dull green alga.
Melanoplus devastator. A few, in sand
under plant cover.
Melanoplus two-striped; red-legged.
" numerous, very jumpers on ground
but suspicious, reluctant spreading, in net.
Acanthus. Several swept.
Work 49 + 2110 = 2159
Other ins. 10 + 5904 = 5914

1937.97 Mugu Point, Ventura Co., California
Sea-cliff. Aug. 13, 1937. (R. R. & Pate.)
In salt marsh of Salicornia, salt grass

and a few scattered clumps of tall bunch.

Asphondylia sp. Local, very active. Adults and pins.

Melanoplus long-winged species. Abundant and relatively general, but less numerous in Salicornia.

Hesperotettix sp. Few - two taken.

Oecanthus sp. Numerous and general.

With. 110 + 2159 = 2269

Other ins. 15 + 5914 = 5929

1937.98 El Toro, Orange Co., California. Elev. 260 feet. August 15, 1937. (R. R. + Pate.) Butte hill slopes with sun-cured yellow grass + fallen grass.

Melanoplus devastator. Abundant - general.

Sphaagnonotus sanctus. One unfrequented here.

Oecanthus pini. - Local in tall yellow grass

With. 11 + 2269 = 2280

Other ins. 4 + 5929 = 5933

1937.99 Arroyo San Mateo, near San Onofre, San Diego Co., Cal. Sea-level. August 15, 1937. (R. R. - Pate.)

(cont. 1937.99)

Mud mangrove wash fed, with sloughs of semi-stagnant water.

Paratettix sp. Numerous on wet or damp sand. Active, all seemed to sweep back and forth on or near the edge of the slough.

Trimerotropis pallidipennis. Several on bare sand.

Schistocerca vaga. One ♂, all seen, although search was made for more. Lighted on ground after being flushed from vegetation.

Microcentrum sp. Jaws. Beaten from weeds.

Tridactylus apicalis. One seen, beaten in net along slough edge, but lost. Continued search failed to produce another. Identification by underwing.

Orth. 30 + 2280 = 2310.

Other ins. 20 + 793 = 813

1937.100 Murray Canyon above Mission Valley, near San Diego, San Diego Co., California. Aug. 19, 1937. Elev. 200 feet. (R. R. + Pate.)

Rolling hill slopes with a chaparral of chamise, a tall ephedra-like plant, a

small amount of mangrove and many other shrubs and low, dead, sun-cured annuals. In places the ground was virtually bare with many reddish stones.

Stagmomantis californicus. 15 taken.

Psoloessa texana. Several but not common, usually on ground but taking refuge in vegetation when disturbed. Productively mated.

Dactista gibbosa. Very few, on ground.

Tepens sp. 4 spec - two taken. On ground. Shy + flying readily.

Melanoplus. aminus type. Rare but not common - strong flyers. In shrubs.

Hesperotettix sp. 1 ♀ long-winged. One male in low dry corn.

Aeoloplectrus insignis. Few and local, in plant corn.

Trimerotropis sp. Local and rare. Five taken after careful search. All in dead low annual but one, this in taller dead brush. Very inactive and all protectively colored, not readily seen.

Estatoderus sp. Several but uncommon.

Station from Cedar Corn.

Orth. 44 + 23.0 = 23.54

Other ins. 2 + 3.03 = 5.03

1937. 101 Lake Hodges, near Escondido, San Diego Co., California. Elev. 400 feet. Aug. 19, 1937. (R. R. + Pate.)

Stony slopes, largely clothed with chamise and tall dead grass stems.

Litaneutria. One ♂ in dry grass.

Paratacillus. One ♀ in same.

Psoloessa thamnogaea. Few in chamise and on ground.

Melanoplus devastator. In tall grass only.

" cinereus type. In chamise.

Very active.

Orth. 17 + 2354 = 2371

Other ins. 2 + 1955 = 1957

1937. 102 Red Mountain, near Fallbrook, San Diego Co., California. Elev. 1025 feet. Aug. 19, 1937. (R. R. + Pate.)

Slopes with chamise, some ritty bush and tall dry yellow grass.

Psoloessa thamnogaea. Few on ground - in shrubs.

Lactista. One, on ground.

Spharagemon venustum. One on ground, flying in shrubs when pursued and taken from same.

Melanoplus cinereus-type. Numerous but very active and wary. In chamise and

other dry shrubs.

Melanoplus three species. Two - very active.

Orth. 11 + 2371 = 2382

Other ins. 10 + 5957 = 5967

1937.103. Elsinore, Riverside Co., California. Elev. 1400 feet. Aug. 19, 1937. (R. R. - Pate.)

Locality about 1 mile N. of Lake Elsinore along highway.

Clumps of chamise with tall yellow grass between the Adenostoma bushes.

Paratrachelus. One male, swept from ground.

Ptoloessa tamaroa. Not common. One from ground and in chamise.

Cuneata. One on ground.

Melanoplus sp. In chamise.

Hesperotettix. One in wild tyrasth.

Cardaleostes unjuga. One, on ground.

Orth. 13 + 2382 = 2395

Other ins. 4 + 5967 = 5971

1937.104 Three miles N. W. of Beaumont, Riverside Co., California. Elev. 2540 feet Aug. 20, 1937. (R. R. - Pate.)

(1937. 104 cont.)

Hill slope from Yucaipa Creek. Com true chamise, the white buttoned type of chamise-like plant and Coulter pine.

Stagnomantis californicus. 2 juv. Inept from chamise.

Podisma thamnophila. Few - but one taken. Usual habitats.

Dphanagenus mundum. Numerous on ground.

Melanoplus cinereus type. Numerous in white buttoned "chamise."

Mecca californica. Not uncommon in true chamise only.

Cast. 25 + 2395 = 2420
Other ins. 24 + 5971 = 5995

1937.105 Banning, Riverside Co., California. Elev. 2160 feet. Aug. 20, 1937. (R. R. Pate.)

Worked about one mile E. of town. Numerous shallow washes on undulating surface. Surface com full, dried sun-cured yellow grass, cacti. No true desert except for plant com.

Podisma. Few, on ground.

Melanoplus cinereus type. In fair nos. in arena. Very active.

Medalemotus enigma. On ground and in dried grass. Very active.

Trimerotropis white-gray spp. Three seen - one taken. On ground and very wary.

Orth. 14 + 2420 = 2434

Other ins. 8 + 5995 = 6003

1937.106 Cabazon, Riverside Co., California. Elev. 1700 feet. Aug. 20, 1937. (R. R. Pate.)

Typical Colorado Desert condition! But 5 miles east of 1937.105 which is So. Cal. coastal in aspect. Covillea, mesquite, ephedra and other low desert plants. Paratettix. 1♀ imp't from low cover.

Pseudocentrotyle. 18 " " " "

Bootettix. In fair nos. in grassland.

Neotettix. One imp't from Covillea.

Tridactylus. One ♂ taken from low cover.

Melanoplus Longipennis. In low ground cover - ephedra, etc. Very active.

(cont. 1937.10)

Poecilotettix pygmaeus. Two in low ~~grass~~ ground cover and in Corillea

Insara corillae. One adult and nymphs. on Corillea.

Orth. 28 + 2434 = 2462
Other ins. 4 + 6003 = 6007

1937.10 Sand hills 4 m. E. of Palm Springs Station, Riverside Co., California. Aug. 20, 1937. Elev. 420 feet.

Sparsely vegetated sand hills. Corillea, Plant tumble-weed yellow grass, low whitish bushes and others of spiny character.

Hippotettix. Two in Corillea in spring low bush. Very active.

Bootettix. Two only. In Corillea.

Conuana vivax. One flushed from low whitish foliaged bush on to sand, when taken. In latter position crouched and did not fly or jump when netted.

Hesperotettix viridis. Two in low bushes, flushing to sand when taken.

Orth. 6 + 2402 = 2408
Other ins. 2 + 6001 = 6003

1937.108 Five miles East of Indio, Riverside Co., Cal. Elev. approx. sea-level August 21, 1937. (R. R. & Pate.)

Alk. Colorado desert lake beds, sand with many sea-shells and in areas the underlying clayey layers crop out clean by the wind. Low mesquite mounds present, scattered Cornilla and many Atriplex of the spiny type.

Bootettix. Two in Cornilla.

Neoloplus. One in Atriplex.

Nomotettix 1 juv. from Cornilla.

Nerotmema deliratulum. Not uncommon in low white alkali brush, flushing to sand by way.

Amorua integra. Two - from same bush, flushing to sand.

Work: 10 + 2468 = 2478

Other in. 3 + 6009 = 6012

1937.109. Twelve miles E. of Indio, Riverside Co., California. Elev. 1600 ft. August 21, 1937. (R. R. & Pate.)

Low hills of granite fragments in soil, with many arroyos. Creosote, mesquite, Atriplex, etc.

(1937. 109 cont.)

Bootettix. Two in Cuilla.

Nomotettix. Two in Cuilla and Ephydra-like plant.

Tumerotropis pallidipennis. One on ground.

Eyllhoxyle. One second host.

Orth. 12 + 2478 = 2490

Other inc. 0 + 6012 = 6012

1937. 110. Ten miles west of Desert Center, Riverside Co., California. Elev. 1650 feet. August 21, 1937. (R. R. & Pate.)

Vicinity of dry shallow wash with Cuilla and palo verde.

Bootettix. Two in Cuilla.

Nomotettix. " " "

Tumerotropis pallidip. One on ground.

Melotmma dilatatum. Out of low white plant.

Orth. 3 + 2490 = 2493.

Other inc. 2 + 6012 = 6014.

1937. 111 Twenty miles East of Desert Center, Riverside Co., California. (Approx. 30 miles W. of Blythe.)

Elev. 670 feet. Aug. 21, 1937. (R. R. & Pate.)

Sandy ~~mud~~ silt and numerous smoke trees

Covillea and scattered mesquite.

Bootiltix. Few in Covillea.

Liguriotiltix. Seen but not taken. In Covillea

Tumoccus Vir. Latin.

Orth. ♂ + 2+93 = 2+98

Atten ins 2 + 0014 = 0110

1937-112 Palowalla, Riverside Co., California. Elev. 1340 feet. August 21, 1937. (R. R. Pate.)

Sparsely clothed desert hill. Think Covillea, and spiny atriplex and another low white plant.

Bootiltix - Few in Covillea.

Heterosmuma delicatulum. Two seen both Lost.

Porcilolitix sinuosa. One in low white plant.

Liguriotiltix. Seen and heard but not taken.

Milanophus Wormii - cummins type. One taken in low white plant. Also seen.

Orth. 6 + 2498 = 2504

Atten ins. 0 + 6016 = 6016

1937-112

1937. 113 Ehrenberg, Yuma Co., Arizona. Elev. 440 feet. August 22, 1937. (R. R. + Pate.)
Gentle slope, largely silt, with many shallow washes, about two miles back from Colorado River. Encelia and low white brush, few Koeberlinias, Olneya and mesquite scattered in washes, little grass.

Bootettix. Two ads. + juv. in Encelia
Lignotettix. Two in Encelia.
Melanoplus. One on bare ground.
Amanica. One on moist silt.

Orth. 8 + 2504 = 2512
Other ins. 18 + 6016 = 6034

1937. 114 East foot of La Paz Mts., 1½ m. S. of Ehrenberg, Yuma Co., Arizona. Elev. 1400 feet. Aug. 22, 1937. (R. R. + Pate.)
Micaschist and gravish fragmented rock slopes. Encelia, two Euphorbias and two annual species of low cacti. Scattered saharas.

Litaneutica. One juv. except.
Bootettix. Adult in Encelia.
Lignotettix. Adult in Encelia.
Paratettix. Except from Encelia.

Ty Thotyla. Numerous on bare rock fragments, usually perched on them, and in Ocotillo, apparently feeding on the latter. Rare on surface of gravelly matrix, but abundant at openings for long distances.

Tiaridiotropis pallidipes. On ground.

Arth. 20 + 2512 = 2532

Other ins. 1 + 6034 = 6035

1937. 115 East slope of Pinnacle Pk., 15 m. S. of Quartzsite, Yuma Co., Arizona. Elev. 1225 feet. Aug. 22, 1937. (R. R. + Pate.)

Varnished lava fragment on sloping slope, with Jatropha, palo verde, Corillea, palo fierro, Prosopis, etc.

Parabrillus. 1 ♀ except.

Bootettix. Numerous on Corillea.

Xiphidiopsis. Infrequent on Corillea.

Pedioecetes texana subsp. One only - all ten on ground.

Paropomala. Two in sun-cured fragments.

Melanoplus arides. Not uncommon on stones on ground.

(1937. 115 cont.)

Melanoplus viridus type. One male dropt from low cone along road.

Orth. 28 + 2532 = 2560

Other sp. 16 + 6035 = 6051

1937.116. East foot of Granite Mesa Hills, four miles west of Salome, Yuma Co., Arizona. Elev. 2050 feet. Aug. 22, 1937. (R. R. & Pate.)

Covilea, few mesquite, low acacias and clumps of short sun-cured grass.

Bootettix. Numerous in Covilea.

Dissosteira. One from Covilea.

Trimerotropis. One found.

Melanoplus viridus type. One dropt from low cone along road.

Orth. 9 + 2560 = 2569

Other sp. 7 + 6051 = 6058

1937.117 Gila Bend, Maricopa Co., Arizona. Elev. 1500 feet. August 22, 1937. (R. R. & Pate.)

Nearly bare area with plant cover almost entirely Covilea and a fair amount of rabbit-weed character but foliage

thin and no humus present.

Boöbotrix: Associated in Ovibos.

Tumuratropis paliidipes. Two on ground.

Melanoplus Sanguinipes-type. Legs.

in tall vegetation.

Arth. 12 + 2567 = 2581.

Other ins. 4 + 6058 = 6062

1937. 118. Between Golden and Aguila, Maricopa Co., Arizona. Alt. 2200 feet. August 22, 1937. (R. R. + Pate.)

Auto and motor flies in car, evidently a flight of the former.

Arth. 0 + 2581 = 2581.

Other ins. 12 + 6062 = 6074

1937. 119 Fourteen miles west of Wickenburg, Maricopa Co., Arizona. Elev. 2900 feet. August 22, 1937. (R. R. + Pate.)

Silt flat with narrow bare wash fringes and areas of completely bare silt. Scattered mesquite and large areas of tall grass (latter mostly Bouteloua), often with tufted clumps of joint cactus.

(1937.119 cont.)

Geocinia. Two dupt.

Scopidora. Two adult males and juv. in bunch grass tufts. Males very active - all black.

Opeia. In fair nos. in bunch grass tufts.

Agenotettix. Adult and juv. bunch grass, etc. jumping into latter.

Psoloessa texana type. Two on bare gr.

Acrotmema b. subcinctum. In fair nos. on dirt.

Trepidulus vocalium. Fairly common on bare dirt.

Cnemotettix subgracilis. One male in bare patch - stands failed to reveal others.

Trimerotropis maj. typical. Two on bare dirt.

Trimerotropis pallidipennis. Adults, associated.

Melanoplus sanguinipes - type. Two in bunch grass.

Melanoplus apricus. Juv. numerous in bunch grass.

Arth. 86 + 2 ov. = 2667

Other inv. 26 + 6 ov. = 0100

1937.120 Eight miles south of Chandler, Pinal Co., Arizona. Elev. 1200 feet. Aug. 23, 1937. (R. R.-Date.)

Silt flat with slight pebble outwash in places. Many scattered saharoo and rather heavy clump cover of small-leaved Atriplex. Very few mesquite. Small area bare, without plant cover.

Aneonia. In Atriplex - apparently feeding - and on the ground. Flying freely - one variable in color.

Neoplus not uncommon in Atriplex. Do not find difficult to locate.

Epidulus. Two on ground.

Melanoplus long-winged species. From mesquite.

Pitnunkia sp. 1 juv. ♂ spt.

Noara lignus. One brachy from mesquite.

Orth. 26 +2667 = 2693
Other ins. 135 +6100 = 6235

1937.121 Pass ~~woodson~~ at Hayden Peak, Sacaton Mts., Pinal Co., Arizona. Elev. 1650 feet. Aug. 23, 1937. (R. R.-Date.)

(1931-121 cont.)

Ben pmln f riaged Emilia, on few tahuaoo, mau ubtisoh Atriplex on silty soil with mau pitches mount.

Stagnomantis sp. 15 taken from Emilia.

Rodentia punctatus. Krall numerous on Emilia.

Lagunoletta sp. Ditto.

Kidanopus sma-minged. Few in Atriplex.

" dentonius. Kraf in Willow and Atriplex.

Heliastus viridus. On ground.

Tepidulus. " "

Ditto. 25 + 2693 = 2718

Ditto inc. 2 + 6235 = 6237

1937. 122. Tolteca, Pinal Co., Arizona. Elev. 1200 feet. Aug. 23, 1937. (R.C. Pate.)

Rangely bare silt, short washed, with scattered mesquite and Atriplex.

Trimorphopis pallidipennis. Few on ground.

Tepidulus mexicanus. One few, on ground.

Merotmema sp. Latiuinctum. One, on ground.

Ammonia integra. One flushed from Atriplex, taken on ground surface.
Melanoplus long-winged. Sum, but lost.
One mesquite.

With. 5 + 2718 = 2723
Other ins. 1 + 6237 = 6238

1937.123 Yuma Road near Picacho Peak, Pinal Co., Arizona. Elev. 1475 feet. Aug. 23, 1937. (R. R. Pate.)
Wash surface with clumps of Coillea, scattered mesquite and Palo verde. Patches of what "six-weeks grass."
~~Brachystola magna Coillea~~
~~Melanoplus~~ 2 juv. ♂ + ♀ stupt from Coillea.
Boopedon: Not common, in Coillea.
Hesperotettix: Sum in Coillea but lost.
Melanoplus dawsoni. One ♀ stupt from Coillea.

With. 20 + 2723 = 2743
Other ins. 15 + 6238 = 6253

~~Worrall~~

Melanoplus long-winged. One juv. stupt from Coillea.
Hesperotettix sp. In composite in wet roadside drain.
Psoloessa texensis. In two green lots.
Dissosteira carolina. One in bare ground.
Trimerotropis sp. In same - another green lot lost.
Encoptolophus sordidus. Two. stupt from Coillea.

1937.124 Tucson, Pima Co., Arizona. Elev. 2375 feet. Aug. 23, 1937. (M. & R. - Pate.)

At light at night.

Trim. pallidipennis. Rec.
Ark. 2 + 2743 = 2745
Other ins. 83 + 6253 = 6336

1937.125. Robles Pass, Tucson Mts., Pima Co., Arizona. Elev. 2870 feet. August 24, 1937. (R. R. - Pate.)

Low pass with cover of tahuaro, palo verde, iron-wood, hackberry, all-thorn, acacia, etc. and a low gray-green leaved bush.

Litaneutria sp. 1 juv. swept.
Stagmomantis calif. 1♂, 1♀, both swept from Corillea.
Parabacillus 2 from low bush.
Lignotettix. Imag. from Corillea and a low bush.
Ptoloessa. Two on ground.
Trimerotropis pallidipennis. Imag. on ground.
" red-legged. Imag. on ground.
Hadrotes aridus. On ground.
Melanoplus diastonius. Occasional in low bush.
Eremopedes albofasciata. Two taken - one from prickly pear and the other from all-thorn.

Mycoplasma. Impt from low thrub and from Corillea.

Arth. 41 + 2745 = 2786
Other ins. 140 + 6336 = 6476

1937. 126 Snyder's Hill, mat side of Tucson Mts, Pima Co., Arizona. August 24, 1937. Elev. 2625 feet. (R. R. - Pate.) Grassland (Corillea) and sahuaro slope, with mesquite and acacia.

Litaneutria. Inv. impt from low com.
Bootettix. On Corillea.
Tropidolopus. On ground.
Lignotettix. Com in Corillea but rare.
Insara corilleae. Inv. in Corillea.
Eremopedes albofasciata. Taken from Corillea and acacia.

Arth. 2786 + 11 = 2797
Other ins. 33 + 6476 = 6509

1937. 127 Pantano Wash, 10 m. E. of Tucson, Pima Co., Arizona. Elev. 2550 feet. Aug. 24, 1937. (R. R. - Pate.) Grassland on bank at side of wash, with mesquite along margins of broad wash.

(1937. 127 cont.).

Stagmomantis californica. 1♂, 1♀ beaten from Conilla.

Nigrotettix. Seen on ground but lost.

Trimerotropis pallidipennis. On ground.

" red-legged. On ground.

Melanoplus mexicanus. Locally common on ground.

Melanoplus L. latericinctum. Nitt.

Ptoloessa. - fem on ground.

Insara covillae. Imm. in Conilla

Orth. 21 + 2797 = 2818

Other ins. 1 + 6509 = 6510

1937. 128 Seven miles E. of Tucson, Pima Co., Arizona. Elev. 2650 feet. Aug. 24, 1937. (JMA & R.)

Plain with many chollas of a number of species, nopal & bisnaga - little else in plant cover.

Trepidulus. On ground.

Nesperotettix. In short dry grass.

Pseudosemnyle. 1♂ in same.

Trimerotropis pallidipennis. On ground

Orth. 5♂ + 2818 = 2823

Other ins. 1 + 6510 = 6511

1937.129 Near Wilmot, seven miles S. E. of Tucson, Pima Co., Arizona. Elev. 2600 feet. August 25, 1937. (R. R. - Pate.)

Grassland plain, with roadside drain containing acacia, low semi-prostrate mimosa, short grass, tall grass, tumbleweed and a tall Ephydra-like plant.

Litaneutria. Juv. Swept from ground.

Stagmomantis ~~carolina~~ californicus. Beaten from Cevillea and Ephydra-like plant. Both sexes.

Stagmomantis limbata. Both sexes beaten from Ephydra-like plant.

Diapheromera covillae ♂, 1 pair (in coitu) in Covillea.

Acanthacris apicalis. Juvs. few in roadside drain.

Psoloessa sp. prob. pusilla. One on ground.

Trimerotropis pallidipennis. One ground.

" red-legged. Beaten on ground, perhaps from shrubs.

Trepidulus. One on ground.

Eudianetus. One on ground.

Hesperotettix. Beaten from Ephydra-like plant.

(1937.129 cont.)

Melanoplus dawsoni, ♀ Numerous. Taken from Cirsium and roadside vegetation.

Melanoplus long-pinnipes. Small - roadside. Immature juvs. melanopleid. Very abundant in roadside drain.

Paropsmala. Five ♂♂ last-roadside.

Insara covillae. Immatures beaten from Covillea.

Hirchopitala hirsicauda. Adult juv. ♂ ♀ beaten from Ephydra-like plant.

Arethaea sp. 1 juv. beaten from same.

Eremopedes albofasciata. Beaten from roadside vegetation.

Orth. 69 + 2823 = 2892
Other ins. 67 + 6511 = 6578

1937. 130 ~~Pa~~ Pantano, Pima Co., Arizona. Elev. 3560 feet. August 25, 1937. (R.R. Pate.) Summit of shallow draw between hills, with mesquite, acacia, rabbit-weed and short grass. Few narrow-leaved grasses in drain along roadside one mass of tall green bunch grass.

Litaneutria. Juvs. Swept in drain.

Trimerotropis sp. - Legged. One on bare ground.

Mestobregma sp. One on bare ground.

Cnippa cannata. One on bare ground.

Podisma sp. pusilla. Several in grass.

Hesperotettix sp. Abundant in drainage "rabbit-weed."

Melanoplus desertorum. Male and one other male in same cage.

Melanoplus sp. - winged. Two on rabbit-weed in drain.

Eremopedes albofasciata. One male in grass but lost.

Mecopoda sp. Adult. One swept in drain.

Orth. 48 + 2892 = 2940

Other ins. 15 + 6578 = 6593

1937. 131 Muscal, Cochise Co., Arizona.

Elev. +100 feet. August 25, 1937.

(R. R. - Pate.

Grass flat dotted with yucca and some infrequently mesquite.

Hagenmanteis 18 males from grass.

Paratylotropidia sp. Numerous in tall grass.

1937.131
cont.

Pseudosarmyle. 2 ♂ beaten from grass.

Sybrula fuscorittata. 1 ♂, 29, from low comm.

Opeia. Occasional in low comm.

Boopedon. Few, roadside, hopping on ground or in low comm.

Xanthippus corallipes. ~~Abund~~ A few, on ground.

Cnemotettix carinata. Few.

Ptoloessa fx. pusilla. ~~Abund~~ Few, on ground.

Tinnerotropis magnifica. One ♀, on ground - roadside.

Tinnerotropis red-legged. Few, on ground.

Tinnerotropis ~~sp~~ pallidipennis. Few, on ground

Hesperotettix. Abundant on taller weeds

Melanoplus devastorius. Synonym, M. ~~abundant~~ laminus animals.

Tumopoda. 1 ♀ in grass.

Parapsyrta. Numerous in grass.

Arethaea. 1 dript from grass.

Eremopedes albofasciata. Two adults taken in separate grasses, and individuals were also seen on ground. Individuals

of this species due to proper hiding for some between the bases of the grass near their roots, among the stubble & filaments, where their eggs are my definite prediction.

Mesopodisid - 1 ♂ ♀ nymph.

Dorsal. 129 + 2940 = 3069

Ventral 15 + 6593 = 6608

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14 Jy. 132 St. Maria, San Pedro Valley, Cochise Co., Arizona. Elev. 3600 feet. Aug. 25, 1937. (R. R. - Pate.)

Mesquite com on adobe soil, much cut by short mesh (dry runs). Roadside with little tall grass but rabbit-weed and low brush grass.

Pseudoscorpyle. 3♂ beaten from rabbit-weed.

Syrbula fuscovittata. 1♂ in roadside weeds.

Orphia sp. Juv. on ground.

Trimerotropis pallidipennis. On ground.

Conozoa carinata. Numerous on ground.

Melanoplus. Fem + larvae on ground.

(1937- 132 cont)

Tripidurus. Two, on ground.
Uta. Uta rabbit-wood.
Melanoplus devastatorius. Numerous.

Arth. 29 + 3069 = 3098
Other ins. 17 + ~~6608~~ = 6625

1937.133 Five miles N.W. of Tombstone, Cochise Co., Arizona. Elev. 4200 feet. Aug. 25, 1937. (R. R. Pate.)

Mesquite dotted adobe with cut roadside drain containing high weeds and reeds.

Some rabbit-wood in ports.

Sceloporus graciosus. 1♂ in wood in drain.

Tropidurus. Two, on ground.

Trimerotropis red-legged. One on bare ground.

Trimerotropis pallidipennis. Two.

Uta. In drain in tall weeds.

Melanoplus devastatorius. Abundant.

" long-winged. One in weeds.

Dichopetala. 1♂ swept in drain.

Ceuthophilus. 1 in drain weeds.

Acanthus sp. 1♂ in ditto.

Arth. 16 + 3098 = 3114
Other ins. 71 + 6625 = 6696

1937.134 Mule Pass abm Bisbee, Mule Mts., Cochise Co, Arizona. Elev. 6050-6250 fut. Aug. 25, 1937. (R. R. - Pate.)
Mountain slopes covered with manganese and other shrubs on a strip fragmented red rock surface.

Lepus. One in ground.
Tamiasciurus allicicus. One in ground.
With. 2 + 3114 = 3116
Other mis. 6 + 6696 = 6702

1937. 135 Mule Pass Gulch below Lowell, Mule Mts., Cochise Co, Arizona. Elev. 4560 fut. Aug. 26, 1937. (R. R. - Pate.)
Gentle slope of fragmented rock, purplish red, light red-gray, with cover of mesquite, acacia, agave and thin surface mantle of dry short grass.

Perimyscus. One ground among stones.
Peromyscus. One ground.
Sylvilagus auduboni. Seen but lost.
Neotoma Seen but lost.
Mustobiensis. Taken - on ground.
Tamiasciurus pallidipennis. One ground
" red-legged. One on ground.

(1937.135 cont.)

Heliaula rufa. One on rock fragments.
Hichopetala bruicauda. One pair in joint cactus, 1♀ on cholla, 1♀ on nopal.
Oecanthus. Impt. undecided.

Orth. 14 + 3116 = 3130
Other ins. 12 + 670 2 = 6,714

1937.136 Lower eastern slopes of Mule Mts., Cochise Co., Arizona. (12 m. N.W. of Douglas.) Elev. 4275 feet. Aug. 26, 1937. (R.R. Pate.)

Acacia and yucca clothed gentle slopes. Area of bare ~~ground~~ rock fragments much.

Trimerotropis pallidipennis. Numerous on ground.
Trimerotropis red-legged. Few - Local.
Melanoplus deuiltorius. Scandom in yucca and oat.
Nothing else noticed.

Orth. 5 + 3130 = 3135
Other ins 23 + 674 = 6,737

1937.137 Sulphur Spring Valley between Forrest and Calumet, Cochise Co., Arizona. Elev. 4050 feet. Aug. 26, 1937

Roadside drain, with reeds and some standing water.

Opeia. Not ~~many~~ numerous - adults + juvs. In grass in or near drain.

Paroponala. 1 ♀

Syrbula fuscovittata. Seen but not taken.

Boopedon. Immatures seen and taken, in grass stand.

Trimerotropis pallidipennis: Frequent on bare ground.

Melanoplus dawsoni. Few.

" long-winged. One ♂ only, in tall drain grass.

Conocephalus sp. Juvs. in drain.

Orth. 21 + 3135 = 3156

Other ins. 52 + 6737 = 6789

1937.138 Sulphur Spring Valley, near Pirtleville, Cochise Co., Arizona. Elev. 3900 feet. Aug. 26, 1937. (R.R. + Pete) Grassy area with many clumps of tall grass. Much of ground quite bare.

Trimerotropis pallidipennis. One ♂.

" magnifica? One ♀ on bare ground - very ~~wary~~ wary.

(1937.135 cont.)

Helianthus rufa. One on rock fragments.
Dichopetala brunianda. One pair in joint cactus, 1♀ on cholla, 1♀ on nopal.
Oecanthus. Impt. undecided.

With. 14 + 3116 = 3130
Without. 12 + 6702 = 6714

1937.136 Lynn, eastern slopes of Mule Mts., Cochise Co., Arizona. (12 m. N.W. of Douglas.) Elev. 4275 feet. Aug. 26, 1937. (R.R. Pate.)

Acacia and yucca clothed gentle slopes. Area of bare ~~ground~~ rock fragmented rock.

Trimerotropis pallidipennis. Numerous on ground.
Trimerotropis red-legged. Few - Local.
Melanoplus devulcanus. Seen down in yucca but not not.
Nothing else noted.

With. 5 + 3130 = 3135
Without 23 + 6714 = 6737

1937.137 Sulphur Spring Valley between Forrest and Calumet, Cochise Co., Arizona. Elev. 4050 feet. Aug. 26, 1937

Roadside drain, moist reeds and some standing water.

Apeira. Not ~~very~~ numerous - adults + juvs. In grass in or near drain.

Paroponala. Adults.

Sybula fuscovittata. Sex not not taken.

Boopedon. Immatures seen and taken, in grass stand.

Tmarotropis pallidipennis: Frequent on bare ground.

Melanoplus dawsoni. Few.

" hy-mixed. One ♂ only, in Tall drain grass.

Conocephalus sp. Juvs. in drain.

Orth. 21 + 3135 = 3156

Other ins. 52 + 6,737 = 6,789

1937.138 Sulphur Spring Valley, near Pirtleville, Cochise Co., Arizona. Elev. 3,960 feet. Aug. 26, 1937. (R. R. + Pete) Grassy area with many clumps of tall grass. Much of ground quite bare.

Tmarotropis pallidipennis. Few. Large.

" magnifica? One ~~male~~ on bare ground - ~~very~~ very ~~rare~~ rare.

(1937.138 cont.) Paroponala. One ♀ in tall grass.

Melanoplus long-winged. 1♀ in light ground.

Orth. 4 + 3156 = 3160.

Other ins. 27 + 6,789 = 6816.

1937.139 Sulphur Spring Valley, 6 m. W.W. of Wayland, Cochise Co., Arizona. Elev. 4090 feet. Aug. 26, 1937. (R.R. Pate.

Dry surface with short grass, partly dead and much of the ~~ground~~ ground bare.

Paroponala, 2 (2 spec. from 37) two in bunch grass.

Trimerotropis magnifica: One in the ground.

" pallidipennis. One in ground.

Conocephalus sp. One ground. (1).

Orth. 8 + 3156 = 3164.

Other ins. 4 + 6816 = 6820.

1937.140 Lee Siding, South end of Pedregosa Mts., Cochise Co., Arizona. Elev. 4460 feet. Aug. 27, 1937. (R.R. Pate.)

In drain between Perilla (to south) and Pedregosa (to north) Mountains. Com Covillea, nopal, ocotillo, mesquite, acacia and black brush. Roadside drains with tall reeds, some in standing water, Ruppia and spur spur chiff compnts. Diaphiromma sp. Larger green one in drain mud. ~~Last~~

Diaphiromma covillae. Larger brown one and smaller green immature ind. supt from Covillea.

Trimerotropis pallidipennis. On ground.
" red-legged. On & by ground.

Insara covillae. Juv. supt from Covillea.

No trace of Bootettix on Guaiacum, although Covillea was studily beaten.

Orth. 11 + 3164 = 3165
Other ins. 135 + 6820 = 6955

1937. 141 Two miles Southeast of Chiricahua, San Bernardino Valley, Cochise Co., Arizona. Elev. 4650 feet. Aug. 27, 1937. (R. R. Pate.)

(1937. 141 cont.)

short green grass on reddish lava soil, with many rock fragments, areas of tall bunch grass and stunted bare soil and/or stones. Roadside drain, (damp) with mud and tall grass.

Parabuteo 2 ♂, 1 ♀, taken from grass.

Syrnia fusconitata, seen but lost.

Bovpedon. Imm. in short grass.

Psoloessa. One ♀ on bare ground.

Ageia 1 ♀ in short grass.

Paroponala. Two species. All in tall bunch grass or tufts of short grass.

Trimerotropis pallidipennis. Ones on bare ground and rock.

Trimerotropis melanoptera. One female. Made a long flight, lighting on bare ground.

Mestobregma. Local on bare ground.

Hesperotettix. " " " "

Melanoplus devulcanus. Taken on white mustard and a member of the buckwheat family.

Conalcea. Local in patches of white mustard.

Conocephalus sp. Imm. In roadside drain.

Acanthus sp. 1 juv. swept from
bunch grass.

Pompilids and large sphecids are
feeding and flying about while
mounted, apparently hunting for
Melanoplus mexicanus.

With. 69 + 3165 = 3234
Without 43 + 6955 = 6998

1937.142 Ten miles north of Rodeo,
San Simon Valley, Hidalgo Co., New
Mexico. Elev. 4000 feet. August 27,
1937. (R. R. Pate.)

Plain almost entirely in black brush
except for scattered joint cactus and
some ~~cattle~~ roadside drain, iron flooring
from composite.

Pseudocemyle 1 ♀ taken from
black brush.

Sumat. Crusalid. In roadside drain.

Allorhina. Two, on ground.

Trimorphopis pallidipennis. One on
ground.

Formation. Three taken, one lost, all
ants. In black brush. Continued search

(1937.142 cont.)

made for more.

Dichoptera sp. 1♀ beaten from black brush.

Arth. 14 + 3234 = 3248.
Other ins. 60 + 6998 = 7058

1937.143 Road pass, to south of Cienega Peaks, Peloncillo mts., Hidalgo Co., New Mexico. Elev. 4500 feet. August 27, 1937. (R. R. + Pate.)

Slopes of decomposed pinkish red granite, with outcrops of massive rock of other character. Plant cover ocotillo, agave, yucca and low grass non-flowering except, as noted as scattered bunchgrass.

Amorbia pallidipennis, Common on ground.

Amorbia humerosana - Few, scattered on ground.

Pyralis. Two adults and many pupae on ground - all dead.

Dichaula rufa. One dead - identified by pupal question - but not sure.

Melanotus anidus. Unc among granite fragments.

Orth. 13 +3248 = 3261.
Other ins. 15 +7058 = 7073.

1937. 144 Met. side of Playas Valley, two miles E. of Steins, Hidalgo Co., New Mexico. Elev. 4200 feet. August 27, 1937. (R. R. & Pate.)
Conilia slopes on adobe and limonite fragments.

Ioasa conilia. Unc. imm. dupt from Conilia.

Parabacillus. 1 imm. ditto.

Ritaxenitria. 18 "

Melanotus anidus. Unc. immed.

Red-legged Trimerotropis. Unc. immed.

Trimerotropis pallidipennis. Unc. immed.

Orth. 7 +3261 = 3268.
Other ins. 8 +7073 = 7081.

1937. 145 Lisbon, Hidalgo Co., New Mexico.
Elev. 4400 feet. August 26, 1937. (R. R. + Pate.)
Short grass plain dotted with many yucca and small bushes of a low non-flowering composite. Soil gravelly, pale reddish.

Nitamantia. 1 juv. on ground.
Parabacillus. In composite.
Cadillanis
~~Octocobbis~~. Juvs. in dung.
Opeia. In composite.
Juv. Prosalid resembl. Pulicaria. In composite.
Prepanopterus Juv. only. on ground
Nerotmema. Abundant on ground.
Mestobregma. Nova type. One ♀ seen and lost. On ground.
Rhinita. Two ♂♂, on ground.
Trimerotropis pallidipennis. Common on ground.
Trimerotropis red-legged. Locally numerous, on ground.
Melanoplus long-winged. One female all seen, taken on ground
Melanoplus short-winged. (Lakinus type) Male in white mustard along roadside
Melanoplus dawsoni. One in mustard.
Mesopolobus: One juv. swept from composite.

Orth. 78 + 3268 = 3346
Other ins. 48 + 7081 = 7129

1937.146. Wilna, Grant Co., New Mexico. (About 2 m. E. of Continental Divide.) Elevation 4500 feet. August 28, 1937. (R. K. Pate.)

Plain dotted with yucca and with considerable area almost entirely covered with black brush.

Stagnomantis ♀♀. Roadside under growth, one in ~~one~~ mildewed.

Stagnomantis ♂. ~~On~~ In black brush.

Paraxidius. ♀♀. - roadside under-

Coahuilanis ♂ on ground - on ground.

Podoscirtes. Two on ground, flying into black brush.

~~Diapheromera~~

Diapheromera femoratum. Several ♀♀ on ground. ~~One~~ One ♂, ground, ~~no~~ ~~other~~ ~~one~~ ~~not~~ ~~seen~~.

Oviposition. Numerous in black brush. When eaten out it would fly directly to another plant of the same species, usually perching on a rather exposed and conspicuous position, often then starting to ovipositate. Rarely they settled on the ground, and in one case made several

(1937.146 cont.)

flights and settled on ground after each.

Herotmema. Two, on ground.

Trimerotropis pallidipennis. Frequent on ground.

Trimerotropis red-legged. Rest on ground.

Tropidolophus. One adult taken on ground, one juv. in milkweed on roadside.

Xanthippus corallipes. One chase for long distance but lost.

Phymolithus. Two males on ground.

Melanoplus viridus type. Taken along roadside on ground.

Campylacantha. One male beaten from black birch.

Eremopedes albofasciata. Two beaten out of black birch.

Orth. 43 + 3346 = 3389.

Other ins. 160 + 7129 = 7289

1937. 147 Deming, Luna Co., New Mexico.
Elev. 4300 feet. Aug. 28, 1937. (R. R. + Pate.)
Adobe flat just east of town. Chief feature of plant cover Atriplex and mesquite.
Litaneutria ♀ on yellow-flowered composite along roadside.
Mesobregma tessicola. Local and uncommon on bare adobe.
Acoloplus. Infrequent in Atriplex.
Trimerotropis pallidipennis. Seen but not taken.
Hoplosphyrum. 1 ad. ♂ beaten from mesquite.

Ord. 3389 + 8 = 3397.
Other ins. 12 + 7289 = 7301.

1937. 148 Two miles east of Cambray, Hidalgo Co., New Mexico. Elev. 4280 feet. August 28, 1937. (R. R. + Pate.)
Reddish loamy sand with scattered yucca, ephedra and tall composite.
Trimerotropis texana. Very rare on ground surface - flying.
Stagmomantis sp. Juv. swept from Ephedra.

Ord. 2 + 3397 = 3399.
Other ins. 13 + 7301 = 7314.

1937.149 Rio miles west of Fairacres (across from Las Cruces), Dona Ana Co., New Mexico. Elev. 4225 feet. Aug. 28, 1937. (R. R. & Pate.)

Brushy dune & bunch on west side of Rio Grande valley. Loamy sand with mesquite clumps, often making low dunes.

Stagnomantis S in roadside composite.

Tramerotropis texana. Dew on loamy sand.

Orth. 6 + 3399 = 3405.

Other ins. 22 + 7314 = 7336

1937.~~149~~ 150 Las Cruces, Dona Ana Co., New Mexico. Elev. 3900 feet. Aug. 28, 1937. At light at night. (R. R. & Pate.)

Two male Stagnomantis.

Orth. 2 + 3405 = 3407

Other ins. 16 + 7336 = 7352

1937.151 Mesquite, Dona Ana Co., New Mexico. Elev. 3800 feet. Aug. 29, 1937. (R. R. & Pate.)

Sandy bottom-land old fields overgrown with bunch grass, tumble weed and clumps

of a tall yellow-flowered rabbit-weed.
Stagnomantis 18 dropt from rabbit-weed.
Trimerotropis pallidipennis. Common around.
Melanoplus texacius. Adults & juvs. infrequent in tall weeds, and then usually along a dry acequia.
Mermiria mexicana. One taken flying from bush to bush, after being flushed from a tall weed.
Cranbycid - numerous in rabbit-weed. (Orth. 8 + 340) = 348.
Other ins. 31 + 7352 = 7383.

1937. 152 Between La Tuna and Vinton, El Paso Co., Texas. Elev. 3790 feet. Aug. 29, 1937. (R. R. Pate.)
Patches of bare Rio Grande bottom land brush, with mesquite predominating and areas of bare adobe.
Hellerotmema. Few on bare patches.
Mestobregma texicola. Several on bare ground. All men.
Neoloptus. Numerous in mesquite - very active and difficult to capture.

(1937.152 cont.)

Melanoplus luteanus. One only, in ~~long~~ tall grass along road.

Oecanthus jun. In two white-flowered roadside plant.

Orth. 14 + 3415 = 3429.

Other ins. 325 + 7383 = 7708.
325

1937.153 Bench at east base of Franklin Mts., El Paso Co., Texas. Elev. 4050-200 ft. August 29, 1937. (R. R. Pate.)

Creosotebush, prickly pear and lechuguilla covered slopes. Ground surface fragmental rock and pebbles in and in living tiss. Hiaphromera corillae. One adult ♂ and 1 juv. beaten from Corillea. All seen after one hour of steady beating. Bootettix argentatus. Six adults and numerous juv. in various instars. All seen after one hour of steady beating of Corillea, in which they were. Pinnacrotropis pallidipennis. Numerous in ground.

Pinnacrotropis red-legged. One, in ground.

Eremopedes corillae spec. One beaten from Corillea - all dam.

Insana common species. Also eaten from Atriplex along Arroyo.
Cyclopithecus. 18 eaten from Cricetus.

Orth. 37 + 3429 = 3466.
Other ins. 33 + 7708 = 7741.

1937. 154 Flat 9 miles east of El Paso
Franklin Mts; El Paso Co., Texas.
Elev. 4050 feet. August 30, 1937. (R.R.-Pate)
Sand dunes with low mesquite covered dunes.
No. O. Ins except Trimerotropis pallidipennis.

Orth. 1 + 3466 = 3467
Other ins. 1 + 7741 = 7742

1937. 155. Bottom foot of Hueco Mts.,
El Paso Co., Texas. (20 m. E. of El
Paso.) Elev. 4120 feet. Aug. 30, 1937.
(R.R. + Pate).
Gentle slopes with stony mantle exposing white limy caliche, fragments of which, with a reddish adobe make up most of the general surface.
Com- open stands of Cricetus, rabbit and

(1937.155 cont.)

and a very few black tuosh. Very little C. present.

Tumerotropis texana. One on low ground.

" pallidipennis. Two, on ditto.

Boolettix argutatus. Very scarce on Covillea. Two adults - Sev. juvs. Taken

Orth. 7 + 3467 = 3474

Orthoptera. 13 + 7742 = 7755

1937.156 Carlsbad Road crossing of Nueces Mts., Hudspeth Co., Texas. (34 m. E. of El Paso.) Elev. 5400 feet. Aug. 30, 1937. (R. R. & Pate.)

Adobe and gravel slopes with caliche fragments, quite thickly clothed with a Larrea-Agave Lechuguilla, a few mesquite, two cacti and a multitude of low bunch composite (not flowering). Although conditions seemed excellent almost no O. was present. Apparently this year there is no water barrier, such as this in the past few years may have been responsible for the greater

scarcity of H.

Trimorphopis pallidipinnis. Local, on ground.

Thin.-leaf-legged. annual, on ground.

" Texana. Rare, from ground, in not wet soil.

Arth. 3° + 34;4 = 34;7°
Altim ins. 13 + 7755 = 7768

1937. 15] West side of Hueco Mts., El Paso Co., Texas. Elev. 4570 feet. (23 m. E. of El Paso.)
Aug. 30, 1937. (R. R. & Pate.)

Stony slope, with wash bordered by sharply cut banks, these lined with tangle of torrent weed Adenostoma-like plant, (in Fallugia paradoxa (Don) Endl.) [poñil] from sample. also with flowering Koeberlinia. The general cover of the slopes was made up of Ocotillo, a few black brush, agave, a few mesquite and numerous low weeds.

Diaphanosoma ocotillae. Type from Ocotillo.

(1937. 157 cont.)

Bootatlan. Stamens in 2 whorls, 5 free from corolla opposite the petals, 5 adnate to the petal tube.

Tiquilia palmeri. Stigmas 2, linear-oblong. Fruit, a 4-parted

" nuttallii. Stigmas 2, linear-oblong. Fruit, an ovoid 4-parted

Cuscutaceae. Stem yellow, leafless, twining, parasitic from tangle of Cuscuta-like stems (Tiquilia paradoxa) plant along main stem. Flowers white, in small heads, on fine white stemmed plant, the other form was a wide tangle.

Calyx 2 + 3 + 4, 5 = 35 - 05

Corolla ins. 30 + 7768 = 7798

1937. 158 Eagle Flat, Hudspeth Co., Texas. (10 miles ± E. of Sierra Blanca.) Elev. 4360 feet. August 31, 1937. (R.R. Pate.) Adobe flat with scattered grass and stone surface mesh in places. Corm Coville, black brush, narrow-leaved yucca, Koeberlinia, etc.

Stagmomantis ♀. Beaten from mesquite.

Bootettix. Common in Corillea, most adult.

Goniaton. Locally numerous in black brush, also taken from Corillea, dry grass and mesquite, and found in bare ground as well.

Arpanopterum femoratum. Scarce in bare ground.

Trimerotropis pallidipennis. Two, on ground.

Trimerotropis red-legged. Local, very active.

Trimerotropis Texana. Two, on bare ground. All seen.

Chloaltis aridus. Several adults on bare ground. All seen.

Chimarocles Carrea. One juv. taken from bare ground.

Encoptolophus. Common species. One beaten from bush brush, then lost.

Week. 55 + 3503 = 3558.
Others in 45 + 7798 = 7843.

1937.159 Between Mid Area and Palacios, Calhoun Co., Texas. Elev. 3825 feet. August 31, 1937. (R. R. Pate.)

Flat with scattered Coastia, Hackberry, a few Yaubinia, areas of tall sun-cured bunch grass and mats of low curly whitish gray sun-cured grass and also low plants resembling white sage. Roadside drain with Johnson, Gilded-flowered composite and white mustard.

Litaneutria. Two. in bad, sun-cured grass.

Pinacidius. In sun-cured grass and black brush.

Pseudocnemyia. ♀ taken from black brush.

Brotettix. Locally abundant in Coastia. Nearly all individuals adult.

Opeia. Abundant, chiefly adult, in low sun-cured grass.

Agenetettix. Sun in grass, adult, but lost.

Hesperotettix. Two adults. 1 juv. taken. One adult in net but lost. One large juv.

Goniatron. Local and in variety of Situatrix, i. e. black brush, Cirillea and on ground.

Trimerotropis pallidipennis. Com.

Mestobregma. One ♀ taken on bare ground.

Herpetinna " " " " " "

Melanoplus long-winged. One ♀, on bare ground.

Campylacantha. Occ. in black brush, Cirillea and on ground. Juv. and adults taken.

Tropidolophus. One taken in roadside drain.

Insara common sp. Beaten from Cirillea.

Mogoplistid. Local in Cirillea and in grass. All beaten.

Orth. 120 + 3558 = 3678.

Other ins. 29 + 7843 = 7872.

1937. 160 Fifteen miles west of Toyahvale, Reeves Co., Texas. Elev. 3700 feet. Aug. 31, 1937. (R. R. - Pate.)

Gentle slope of finely broken stone, reddish and whitish in color. Plant

(1937. 160 cont)

cover made up in large part of low juniper, low mesquite, yucca and bunch grass.

Trimerotropis pallidipennis. Common.

" red-legged. A few only, on ground.

Tomonotus. A single one taken, on ground.

Rhomita. A few seen, dismal lot, one taken - all on ground.

Acrid. 10 + 3678 = 3688.

Caelifera. 3 + 7872 = 7875

1937. 161 Eight miles East of Fort Stockton, Pecos Co., Texas. Elev. 2500 feet. Sept. 1, 1937. (R. R. Pate.)

Almost entirely black brush and acacia, with an occasional Covillea, on a whitish soil with finely broken limestone wash topping.

Litaneutria jnv. 1 spt from black brush.

Stagmomantis " " " " "

Pseudocernyla. 18, 14. Beaten from black brush.

Bootettix. Final inst from Covillea - one taken.

Mermiria maculipennis. One ♀ taken from black brush.

Acantherus piperatus. One ♀ taken from black brush. Acanthus seen but last.

Pediosaitetes. Infrequent and local, on ground, chiefly along road. Irregular in action, one minute flying freely, the next crouching and permitting the net to pass over it.

Orthopteran. Local on ground and in black brush.

Tomonotus. Two-local on bare ground.

Conistron. Usually quite numerous in black brush. Sometimes on bare ground. Two and three taken from a single bush.

Trimerotropis pallidipennis. A number, chiefly along roadside.

Trimerotropis sp. Local. Few and local on bare ground.

Melanoplus sp. One taken on ground.

Orchelimum. Occasional, chiefly in marsh by dam.

(1937. 161 cont.)

Melampodium leucanthum. Scattered - in black brush and on ground.

Campylacantha, very numerous, general.

Dactyloctenium pictum. Very few - locally in black brush and tall grass, as well as on bare roadside patches.

Aristida. One on ground in dry roadside drain.

Mesoplistrid. Inspt from black brush and tall grass.

Acanthus. Inspt from black brush and tall grass in roadside drain.

With. 187 + 3688 = 3875.

Other ins 12 + 785 = 797.

1937.162 Fifteen miles East of Sheffield, Pecos Co., Texas. Eales. 2075 feet. September 1, 1937. (R. R. Pate.)

Limestone flat strewn and broken, white drift and fragmented surface stone, dotted with mesquite, acacia and low junipers. Dry short-curly grass main cover; in dry roadside drain tall bunch grass and rabbit-weed.

Pseudocneorhinus. Numerous, 78 particularly in tall grass in roadside drain.

Sigmoda. Locally numerous in roadside drains. DS much less frequent than S.S.

Opuntia. Numerous in roadside drains, chiefly jars.

Tropidolophus. One jar. in tall roadside grass.

Echinita. One in bar, limestone talus.

Acanthus. Few, beaten from drain vegetation.

Mesoplisbia. Ditto.

Meth. 59 + 3875 = 3934.
Other ins. 11 + 7887 = 7898.

1937. 163 Twenty-one miles East of Sheffield, Crockett Co., Texas. Elev. 2000 feet. Sept. 1, 1937. (R. R. Pate.) Limestone slopes dotted with mesquite and juniper, low corn sun-cured short grass and clumps of tall bunch grass. Dry roadside wash with tumble weed, tall grass and other weed components.

Litaneutria. One in tumble weed.

Psolocosa. One in tall bunch grass. One other escaped.

(1931.163 cont.)

Short-winged Melanoplus. 1♀ in roadside drain.

Melchopitala. 1♂ swept from vegetation of roadside drain.

Mecopoliticd. Swept in roadside drain.

Wash. 8 + 3934 = 3942.

Other ins. 3 + 7898 = 7901.

1937.164 Nineteen miles East of Ozona, Sutton Co., Texas. Elevation, 1775 feet. September 1, 1937. (R. R. Pate.)

Park-like mesquite and live oaks on limestone slopes with thin top soil. Soil cracks deep in roadside tall grass and weeds. [Heavy shower gathering Northward and West.]

Schistocerca. Swept from grass.

Dissosteira " , roadside.

Melanoplus. 4♂, 1♀, 1 juv. swept roadside.

Syrbula. Not common - roadside. Mainly males taken.

Opeia. Common, adults + juvs.

Melanoplus. Common in short grass under mesquite. Males more common than females.

Aphis. 1 ♀ under mesquite in short grass.

Tomostus. Few, on the ground under mesquite and along roadside.

Eucoptocephalus. On ground under mesquite.

Campylacantha. Very abundant, both adults and juvs. Green and brown phases taken in coitu.

Melanoplus differentialis. One, roadside.

" plancipes. Juvs in roadside thicket.

" short-winged. Infrequent roadside.

Microcentrum. One ♂, one ♀. Adults, roadside growth.

Conocephalus. Infrequent in roadside grass.

Grass. Adults 120 + 3942 = 4062
Other ins. 24 + 7901 = 7925.

"1937. 100" Four miles north of Segovia, Kimble Co., Texas. Elev. 1100 feet. Sept. 2, 1937. (R. R. + Pate.)
Roadside vegetation of tall bunch grass,

(1937 - 165 cont.)

very low mimosa and a low, sun-cured grass. Adjacent fenced land under oaks and mesquite almost without Orthoptera on account of heavy goat browsing. Rock where exposed, white limestone.

Dicipheromera. Locally numerous in tall brush grass.

Syrbula. 2 spec. Numerous, very active. Often together.

Mermiria maculipennis. One male, roadside.

Aspina. 2 species. Final. Roadside (often one) and in park-like mesquite and oak (rare).

Hippiscus rugosus. Roadside, one.

Chortophaga viridifasciata. Final-roadside.

Encoptolophus costalis. One - "

Tomonotus. Final, - roadside.

Melanoplus impiger. One in roadside mud.

Melanoplus glaucipes. One, roadside.

Campylacantha. Abundant as a whole, and final adults much less frequent than June.

Paraidemona. Infrequent. roadside.
Adults - June.
Dichopetala. 1 ♂, 1 ♀, beaten from
brush grass.
Conocephalus. Adults - June. Roadside -
Not numerous.
Oecanthus. Roadside, beaten.
Hapithus. 1 June. - "
Nemobiidae. " "
With. 105 + 4062 = 4167
Other ins. 9 + 7925 = 7927

1937. 166 Eleven miles N.W. of
Mountain Home, Kerr Co., Texas.
Elev. 1560 feet. (R. R. - Pate) IX. 2
Scrub oaks in park-like stands, dry-
cured grass beneath. Roadside rather
dry brush with live scrub oak, yucca
and prickly pear.
~~Eb~~ a Stagmomantis ♂ in oak scrub.
Pseudosermyle 1 juv. beaten, roadside.
Syntonia admirabilis. Roadside - few.

(1937.166 cont.)

Melanoplus short-winged. Fed, roadside.
Conocephalus strictus. Beaten from roadside tall grass.
Oecanthus. Beaten, roadside.

With. 22 + 4167 = 4189.
Other nos. 5 + 1924 = 1929.

1937.167. Five miles W. of Boerne, Kendall Co., Texas. Elev. 1025 feet. Sept. 2, 1937. (R. R. - Pate.)

Whitish limestone hill slopes with park-like oak cover, low cover of short grass, a taller bunch grass, low yucca and an Adenostoma-like plant.

Roadside drain (dry) grown up in very tall grass and various rank weeds.

Pseudosarmyle. Quite general in tall grass and from oak.

Tyrbula admirabilis. General.

Murmira maculipennis. One flushed into low tree.

Opeia. Fed, in short grass.

Mecoclora. General outside of tall grass.

Almost all dermaptera immat.

Amblytropidia 2 juvs. rumpt from tall grass.

Aspidia. Same. Two very reddish individuals taken near roadside. These are exactly the color of dead leaves on the ground at the same points. They were taken 100 yards apart.

Hippiscus. One in short, brush grass.

Rehnita. Two in bare limestone surface.

Romaleum. One in bare limestone.

Trimerotropis pistrinaria. Scattered on bare limestone.

Paratylotropidia Two species, one (app. minuta) much the commoner. Along roadside in grass.

Melanoplus Long-winged. Short grass-roadside.

Melanoplus dark short-winged sp. In short grass, not in roadside area.

Melanoplus other short-winged sp. Juvenal.

(1937. 167 cont.)

Arthraea. Impt from dust and tall bunchgrass.

Necrocephalus. In tallest and in roadside drain.

Cruciphalus. Found in tallest grass and mud, also on yucca.

Napithus. In short grass.

Morgpluriid. Impt.

Veranthus "

Cath. 141 + 4189 = 4330.

Other ins. 5 + 1929 = 7934.

1938.

1938. 1. Blue Ridge Crossing trail.
New Tripoli and Snydersville, Lehigh-
Schuylkill Cos., Penna. Elev. 1360 feet.
(bunch.) July 10, 1938. (J.M.G. & J.M.A. Rehn.)
In scrub pine covering top of Blue Ridge-
oak, chestnut, maple and cedar. aspen +
pine. Undergrowth largely sweet-fern,
brake, huckleberry, sassafras + oak
brush. Along trail + in woods.
Diapheromera - 2 very small juvs,
prob. in woods. (not preserved.)
Nomobettix. Numerous along trail on
stony soil.
Chloealtis. 2 ad. ♂ - 1 subimmat. ♀,
along trail in brake + short grass bor-
dering brush.
Scudderia juvs. of 2 spp.
Prob. Microcentrum sp.
Amblycorypha. 1 juv. prob.
Pterophylla juv. prob. from oak.
Neoconocephalus. juv. on ground along trail
+ prob. from vegetation.
Oecanthus. Lit. 1 my juv. Not taken.
Orth. 15 + 0 ± 15
Other ins. 15 + 0 = 15

1938.2. Broad Mtn. N.W. of Nesquehoning, Carbon Co., Penna. Elev. 1650 feet (track) July 10, 1938. (Rehn - Rehn).

Cut-over scrub land with dense sweet-fern, brake, huckleberry + other undergrowth. Very thick, average height of bush 3 feet. Few small area timber - oak, aspen - wild cherry - about 10 feet high.

Nomotettix. In scrub on ground and along road in tall grass.

Chloealtis. ~~Along~~ Bush edge in tall grass along road.

Xiphidiopsis. Juv. - 1 ad. (latter sex but not taken) in woods.

Appalachia. 1♀ beaten from oak + sweet-fern scrub. All sides. (Eggs fairly large.)

Melanoplus fasciatus. Female in same, very scarce.

Mel. marginatus type. Very scarce and local in same.

Mel. long-winged species. Juv. only in scrub.

Amblycorypha Juv. beaten from scrub.

Scudderia - Juv. ditto.

Neoconocephalus Juv. sex - not taken.

Orth. 40 + 10 = 50

Other ins. 14 + 10 = 34

1938.3 Five miles northeast of White Haven, Carbon Co., Pa. Elev. 1,700 feet (aneu.). July 10, 1938. (Rehn & Rehn.)
In thin patches & moist fen at edge of cut-over woodland, - Undisturbed condition.
Nomotettix. - On bush at road edge.
Conocephalus. - Fen & fen. Quite in grass.
Amblycorypha - Saddened. Imm. Imp?
Scyllinus assimilis. Heard.
Orth. 6 + 0 = 61
Other ins. 11 + 34 = 45

1938.4 Poplar Gap, Pocono Escarpment, Monroe Co., Penna. Elev. 1850 feet. July 10, 1938. (Rehn & Rehn).
Completely burned over since our last (1936) visit - even ~~the~~ humus now charred. Walk & soil coming in handily. Nothing at all taken except on Nomotettix imp & fem charred ground.
Orth. 1 + 61 = 62
Other ins. 0 + 45 = 45

1938. 5 Magnolia, Kent Co., Delaware.
July 16, 1938. (Rehn - Rehn.)

In old grass hole with weeds, blackberries & other rank growth, also boggy spot, apparently bracken with rushes and tall grass.

Tenodera sp. Juv. General.

Tettigidea. Particularly in wet area.

Paratettix. On bare ground and also in wet region.

Orphulella. General but not common.

Dichromorpha. Juv. in old field growth.

Mutaleptea. 1 juv. at base of weeds.

Chloealtis. Adult fem, juv. Taken on bare ground.

Melanoplus mex. Juv in muddy growth.

Juv. Melanoplus sp.? Numerous.

Scudderia. Juv. nymph.

Microcentrum Juv. "

Mogoplistid (?) " "

Birds. 80 + 0 = 80

Other mis. 36 + 0 = 36

1938.6 Near Ellendale, Sussex Co., Del.
July 16, 1938. (Rehn & Rehn.)

In huckleberry and oak & pine & scrub undergrowth in open & pts in pine woods. Almost nothing.

Scudderia. Beaten from huckleberries.

Microcentrum Jnv. Beaten from oak & scrub.

Orth. 2 + 80 = 82

Other ins. 8 + 36 = 44

1938.7 Selbyville, Sussex Co., Delaware.
July 16, 1938. (Rehn & Rehn.)

In roadside boggy spot with tall grass, & scattered small gum flanked by pine with blackberry tangles bordering same.

Mantidae Jnvs. Two-spot.

Mastotis. Two-spot.

Orphulella. 1 Jnv. - spot.

Sphagnum Colli. 1♂, 1♀. Flushed and taken near tangles.

Oedaleonota any small Jnv. Spot from tall grasses.

Paroxya sp. Jnv. only - numerous.

Melanoplus sp. Jnv. Two-spot.

Scuddera sp. Juv. rupst.

Microcentrum ? Juv. rupst.

Neunbrio Juv. rupst.

Orth. 31 + 82 = 113

Orthoptera 6 + 44 = 50

1938. 8 Pocomoke State Forest, 5 m. S.W. of Snow Hill, Worcester Co., Maryland July 16, 1938. (Rehn - Rehn)

Open pine, oak & sassafras woods, with ground cover of oak brush, fox grape and huckleberries, to sandy field exposure on margin of woods.

Mantidae. Juv. Ad. rupst.

Syrbula - A few juvs - roadside - forest edge.

Orphulella - Few - forest edge.

Aphis sulphurea - Few in woods on edge of forest.

Sphenarium Bolli: Few, in forest.

" aequale. 1 on sandy exposure.

Paratettix. Scarce - juvs. only taken, one adult seen - East.

Pandalophora phoenicoptera: 1 in sandy field & 2 on sandy road edge.

1938.8 (cont.)

Schistocerca vay gid. – in woods.
Mel. confusus? 1 aff. in woods.
" Luridus. Juvs. in woods only.
" Hunt. unged. sp. 1 dam + host in woods.
Scudderia. Two adults in woods & in scattered low trees in sandy area.
Amblycorypha. Juvs. only – tempt in woods.
Xiphidium. Juvs. tempt in woods.
Neoconocephalus. Juvs. one grown in woods.
Orth. 27 + 113 = 140
Other ins. 16 + 50 = 66

1938.9 Between Eastville and Cheriton, Northampton Co., ~~Maryland~~ Virginia.
July 17, 1938. (Rehn and Rehn.)
In open forest of Lob. Loblolly pine, tulip and sweetgum, with flow of needles and clumps of tulip trees, smilax, wild cycad, holly, etc., and opened-up narrow roadside drain.
Mantidae. 2 juvs. – tempt in forest.
Tettigidea – 2 species? In drain.
Neotettix – In drain.
Orphulella 1 juv. Woodland edge.

Asphia 1 Tahun, 1 last. radaide.
Oedipodid jun. op.? Radeide
Melanoplus op.? Jun. "
Scudderia jun. Radeide much.
Orchelimum jun. } in woods - in
Conocephalus " } drain.
Nemobius jun. in, dry pine woods.
Hapithus a Orchamus. jun. - Amaroecus
in woods - tarpt. land.
Anaxipha 1 in drain.
Falcicula. 1 " woods.

With. 57 + 140 = 197
Lotheus. 26 + 66 = 92

1938.10 Birdsnest, Northampton Co., Virginia. July 17, 1938. (Rehn - Rehn)
Prairie along road and railroad - first short grass - 2nd taller rocky part.
Tettigidea. 2 spec. Numerous.
Neotettix. Less numerous than Tettigidea.
Syrbula. Jun. 1 tarpt.
Dichromorpha. Local in fair no.

1938.10 (cont.)

Sphagnum Wilii. Jmal in ditch - all sizes.

Melanoplus bivittatus. Jnv. Fabu & adult - lost.

Schistocera. Jnv. sizes.

Scudderia. Jnvs. only

Amblycorypha flor. carinata. 1 adult on ground of bank slope.

Orth. 72 + 197 = 269

Other ins. 15 + 92 = 107

1938.11 Exmore, Northampton Co., Virginia. July 17, 1938. (Rehn - Rehn.)

Cut out pine and oak woods. Much brush & virtually nothing there but a few Sphagnum Wilii, which when followed settled in ground & in holes.

Xiphidium Jnv. beaten.

Orth. 5 + 269 = 274

Other ins. 3 + 107 = 110

1938.12 Temperanceville, Accomac Co., Virginia. July 17, 1938. (Rehn and Rehn.)

Pine, oak, sweet-gum and maple woods - undergrowth chiefly same.

Stagmomantis jun. 1 nympt.

Orphulella. Jun. Roadside.

Melanoplus. Last stge. Roadside.

Pharagmus Ellii. Numerous - funeral, particularly on bare sandy surface.

Camptonotus 1 nympt from sweet gum undergrowth.

Scudderia. 1 ad. ♀. Roadside Jun. in woods.

Oecanthus. Very young sum but not Fahrn.

Orth. 25 + 27 ♀ = 299

Other wis. 9 + 110 = 119

1938.13 Costen, 3 m. N.W. of Pocomoke, Somerset Co., Maryland. July 17, 1938. (Rehn + Rehn.)

In mixed pine and deciduous woods. Tettigidæ. Road drains on edge of woods.

1938.13 (Cont.)

Helichromopha. Roadside.

Chlocaltis conspersa. 1 ♀ just within woods.

Sphagnum. In woods on & under undergrowth.

Melanoplus mex. Juv. in drain.

Melchinum. Juv. In drain.

With. 12 + 299 = 311

Other inv. 9 + 119 = 128

1938.14 Loretto, Somerset Co., Maryland July 17, 1938. (Rehn and Rehn.)

Roadside drain and edge of mixed woods.

Sphagnum tollii. On & in mud edge.

Paroxya. 1 ad. in ditch herbs.

Schistocera. Juv. In ditch.

Melchinum. sp. Juv. Ditch.

Scudderia. Ditch.

Phyllopsyrtus. Small but stumpt in wings.

Lapithus Juv. Stumpt in wings.

With. 15 + 311 = 326.

Other inv. 9 + 128 = 137

1938. 15 East side of Nanticoke River near Vienna, Wicomico Co., Maryland July 17, 1938. (Ruhm - Ruhm)

Roadside embankment and ditch cattail marsh with mixed woods on other side of road.

Neottia. Roadside.

Spiranthes. Juvs. only - on embankment ridge.

Limnia. 18, 4 juv. ♀. In cattails.

Clinocephalus. Juvs. in cattails.

Cephalella. Juv. Roadside.

Hippiscus rugosus. Iad. Roadside.

" sp. Juvs. "

Chortophaga " "

Orthoptera aequale. Roadside. Que taken, other seen.

Dissosteira. Adults & juvs. on road.

Paratettix Juvs. Adults & juvs. roadside and into cattails (!!)

Melanoplus bivittatus. Roadside.

" mexicanus. "

Orth. 32 + 326 = 358

Other mio. 18 + 137 = 155

1938.16 Buffalo Flat, btw. Buffalo-Branch
Mts.; about 5 m. N.W. of Hartleton, Union Co.,
Pa. July 30, 1936. R. Fuhs - R.J. Conrad
reading 2275 feet. Late afternoon
raining. Conditions virtually as for 1936.
Using lights at night, bait on trees and
hunting with flash light following thunderstorm.

Nomotettix cf. stylus in low corn.

Cyphoderris jrs. only in grassy patch
near house.

Chloealtis conspersa In fair number
along woodland edge by house -
in this small area many hopo and
hawk fragments.

Melanoplus cf. femoral adults
Dissosteira sp. jrs. " about house
area.

Melanoplus bilittatus A few in
grassy area about house.

Melanoplus walshii One ♂ in tall
grass - low thickety near house.

Mel. confusus. One male in
grass near house.

Mel. mancus Numerous in
grass - low thickets.

Mel. fasciatus. Adults
" femur-rubrum. Of near house
in grass.

Sanderia septentrionalis. Males relatively common, in wild slimy, oaky, ~~and~~ tunnel ~~into~~ with hazel. Female much scarcer, 1. Some shaken out of trees in day time; one came to visit on pine, others located by stridulation. Juv. & septentrionalis one present.

Sanderia cunicanda. Very fond. One flushed.

Ptenophylla 1 juv. at bait.

Amblycnypha Hemp. 10 shaken from tree.

A. rotundifolia. Common, ~~at~~ in low cum, - bushberry & laurel.

Atlanticus davisi 10. At bait.

Conocephalus fasc. In grass & bushberries.

Orth. 24 + 0 = 14

Ortho ins. 81 + 0 = 81

1938.17 Same as 1938.16 but ~~to~~ July 31, 1938.

All Centhophilus juv. Hemobius & grown beetles taken in molasses trap put out one night.

1 at

Amusettix, edge of road.

Diaphonema 1 ad. ♂ & num. juv. swept from hedge of vine.

1938.17 (Cont.)

Chloralis along clearing edge of woodland.

Viscaria. Fair in clearing - along road.

Sphagnum Wilii. One along road.

Mel. mancus. In bubbling area, general, not abundant.

Mel. fascicus Ditto.

Mel. maloui ♂, ♀ woodland edge of clearing.

Sudduria ~~septentrionalis~~ probably. Rozen ± ♀♀ less numerous than males. Beaten on taken from foliage of oak, alder & hazel. Imm. also.

Sudduria pisidiata: ♀ Beaten.

" cunicauda. Two, chiefly in bad ground area.

Amblycampta rotundifolia. Ditto.

Cnemph. fasco In grass about ⅝ hour.

Pterophylla 1 imm. beaten from oak.

Orth. 80 + 74 = 154

Other sp. ~~77~~ 44 + 81 = ~~158~~ 125

1938.18 Same as 1938.17 but P.M.
of same day.

Diaphanosoma ♂ ad. taken on surface of large stone. ♀ ad. on trunk of oak tree, juvs. taken from oak.

Nonotettix listeri common, on road and one, very brilliantly patterned except from laurel.

Chloealtis - gnerally distr. in small groups usual near dead logs + branches.

Elphistella ad. in grass.

Dissosteira ads. + juvs. seen.

Sphagnum Willi Along road ~~—~~ in patches of short grass, usual on logs + others in opening of woods too. Too much shading by trees.

Sphagnum plumum In open places with mixed low bushes, must form - Clumps of logs.

Appalachia hubbardi ♀ taken from land - all seen as result of all day application to ilo pursuit.

Melanoplus bivittatus Av. seen about town.

1938.18 (cont.)

Melanoplus walshii. 2♂, 1♀. In low
herbage on wood edge.

Mel. fasciatus. Locally common, usually
in timber.

Mel. mianus. Locally common, usually
in open areas - in herbage com.

Scudderia septentrionalis. General, usually
on foliage of oak, hazel, elm, herbage
- witch-hazel (rarely on cattle).

Scudderia other species. Usually com
in prairie than septentrionalis -
three curvicauda, fasciata, etc.

Amblycorypha rotundifolia. Numerous
in low herbage.

Pterophylla. Rare. Taken from
oak foliage.

Atlanticus davisi: 1♂ in barn.
about stones in low herbage com.

June 8 - Clinaciella brunnea 1♀(?)
on top of low herbage.

Orth. 93 + 154 = 247

Other ins. 331+ + 125 = 456

1938. 19 same as 1938. 18 but Aug. 1, 1938.

Mostly comm to light July 31 (in trap) Anthophilus, Atlantis, Osmia with Hoplitis

Hoplitis manis. 1 ♂ swept from dwarf

2 ♀♀ swept from oak scrub - picked

from the trunk.

Nomadella. Along road, in low huckleberry,

sweet fern - bracken.

Chloralbis. Moderately common in low

huckleberry - sweet fern.

Sphecodes albilabris Commonalong road

rare. not in bare road.

S. clematis. In road into camp.

Halictus confusus Low along road.

Agapostemon. 1 ♀ swept from sweet

fern near cabin.

Mel. punctulatus 1 ♀. Taken from

Laurel.

Mel. malachii. Low but local.

" mamus. Locally common.

" fuscipes " "

Sandalia septentrionalis. Locally

quite common in variety of situations

low as low as low huckleberry com.

1938.19 (cont).
Scudderia other spp. Variety of situation - less numerous than septentionalis.

Amblycorypha rot. Quite common on two localities.

Neonbrius 1♂ in grass in front of house.

Atlantica dasii. One ♂ taken in bait jar.
Pterophylla ♂♀. from Oak

Neoconocephalus jmo. Also in bait jars.

Orth. 105 + 247 = 352
Other sis. 167 + 406 = 573
+ other sis. 77 + 573 = 650

1938.20 Same as 1938.19 but coming and at night. Using flash-lights, bait and large pressure lights.

Diapheromera 1 at light, 1 at bait.
Neoconocephalus ♂♀. taken late afternoon in grass

Appalachia hebardi 1♀ in late afternoon in side of cabin.

Scudderia septentionalis very common at light, also attracted to bait. Males predominate at light, females at bait.

~~1938. 19~~

Sandaria other species. Less numerous than septentrionalis. Same environment.

Ptenophylla juv. At bait.

Amblycentha ♂♀. At bait, at light and in various situations.

Anchelimnus vulgare ♂ stalked with light.

Centhophilus ♂ at bait.

Arch.	76 +	352	= 428	1227
Other ins	~~132~~ 139 +	650	= 789	

1938. 21. Same as 1938. 20 but miscellaneous alcoholic insects, myriopods, mollusks, arachnids and crustaceans. July 30 - August 1, 1938. Material from many tributary to Buffalo Creek. Also parasites. Many from bait jars Aug 1. 10 — also Centhophilus + Nemobius

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1938. 22 2 miles west of Ong's Hat traffic circle, Burlington Co., New Jersey August 3, 1938. (R.) d.p.

Dendrothrix generosa infestation very spotty and irregular in distribution — general area of infestation not definitely ascertained but probably a

couple of hundred acres.
The heaviest portions of infestation is in the scrub oak, the larger ones being in the cut over areas where the pines has been completely cut off. and in areas that were burned over six or seven years ago. Very little infestation in areas where there are relatively large pines. Heaviest infestation not over 50% of that of 1936.

Long winged individuals about 10% of population, males outnumbering females three to one only one individual with intermediate wing length seen and lost. Evidences of parasitism not very marked — filarian worms in only 2 of 25 pulled apart or gutted - no clinical evidence of sarcophagid parasites - but one dropped in bottle with her material. Two parasites noticed in a dozen 0's pulled apart.

An area of infestation — no

complete absence of other forms of orthoptera. (also see below)

Diapheromera femorata 1 juv. swept from scrub oak.

Neoconocephalus carolina - common along road side and in old field.

Melanoplus punctatus - relatively common through pine ~~woods~~ woods.

Mel. bivittatus relatively common in old field and along road.

Orchelimum vulgare - few scattered through old field and pine woods - very active

Melanoplus differentialis - few in old woods and field.

Amblycorypha oblongifolia - not many noted climbing trees. Numerous long winged individuals noticed hiding in dead leaves and ground litter when disturbed.

Orth 43 } (not counting live
Others 2 } 45. material)

1938.23 - Same as 1938.22 but Sept. 2, 1938

Dendroctonus infestation:

numbers greatly reduced - individuals rather scarce - but more general in distribution - on ground, shrubs, scrub and taller oak, on tree trunks.

All relatively sluggish - only active when disturbed - but even then not as active as early in the season.

Number quite reduced - only 1:50 or 1:75 of previous number.

Long winged individuals no seen except for one ♀ - with charred wings that could not fly.

Color - particularly ♀'s much less ~~the~~ brilliant - most a dull brown - resembling specimens in the burn color in collection.

Many of ♀'s with charred wings and even the margin of the pronotum is lacking. Thus individuals did not show any signs of parasitism - many still had eggs - just about fully developed.

Practically all ♀'s were either in cop. or else were on the ground - probably ovipositing??

Fine material - probably frontale?

Many of the oaks - particularly scrub - that were eaten have terminal

shoots practically covered with a white fungus.

Other orthoptera seen

— Xiphidiopsis

Melanoplus.

Scudderia or Preneticia

Infestation on the deciduous.

Orth. 16 } (18)
Hem. 2 }

1938.24 1 mile S.W. Abbottstown, Adams Co. Pa., elevation 700 ft. or 800 (R)
(September 3, 1938.) (Walnut Grove)
Same collecting location as 1936.5
Conditions essentially the same.

Diapheromera femorata — several late juv. & adults. — in various scrubby growths but particularly on oak.

— do small yellow-green juv. Diapheromera or Manomera ??

Acrydium sp. one swept from low growth in overgrown field.

Tomonotettix cristatus — one taken on ground in low cover

Tettigidea lateralis — several in overgrown field — and in some area quite common in old field.

Encoptolophus sordidus — local along edge of old field on roadside

Chortophaga viridifasciata – young nymphs of 2nd generation seen – not taken.

Spharagemon bolli – few in overgrown field – quite active.

Hippiscus (n. lat.) nymph – roadside – a few seen.

Schistocerca americana – in tall weeds and low shrubs at edge of field – quite sluggish – only one seen.

Melanoplus dilaurae(?). 1♀ seen but lost in edge of woods.

Mel. mexicanus(?) – few in overgrown field but quite common in old field in Conocephalus – many apparently parasitized by Sarcophagidae.

Mel. luridus-kuleri – quite rare in overgrown field and along edge of woods.

Mel. bivittatus 1♀ – all seen – on ground in field.

Scudderia furcata? – several seen and taken in higher growth in overgrown field.

Amblycorypha rotundifolia – 1♀ in low grass in field.

Amblycorypha oblongifolia? – in low cover in field

Neoconocephalus sp. 1♂ – swept in old field.

Conocephalus fasciatus - quite rare - in old field.

Conocephalus sp. 1. - long ovipositor & short tegmina - quite common in old field.

Conocephalus sp. 2? - shorter ovipositor & longer tegmina - in same situations as sp. 1. but much rarer - I am sure of this.

Gryllulus assimilis - adults relatively common on & near ground in overgrown field 1♀ seen being eaten by wolf spider.

Nemobius - Complex - 2 sp(?)! -
both are low grass near ground in fields - practically all adults
1 juv. Nemobius? - red head - in similar situation.

Nemobius verticalis - 1 juv seen and taken - on ground - no others noticed.

Oecanthus sp or spp. in grass & low weeds, quite general

94

6 others.

100

1938.25 Dott, Fulton Co., Pa., elev. 1000 ft. September 3, 1938 (R.)
Edge of woods with oak and sassafras, with some maple & hazel(?) & old field with Rubus, Rhus and goldenrod.
Edge of woods with Aster & old field
Franks.

Dicyphorus famoratus — ♀ just
larger than last named.
Nemotelus uliginosus — figure common
same size as from Toledo
Leptidea sp. — ♂ ♀
Parcoblatta virginica? — ♂ light
— ♀ ♂ ♀ ♂ ♀
Parcoblatta pennsylvanica — ♂ ♀.
— running on ground, under leaves, &c.
Ephemerella dorothea — ♂ fair — ♀ fair.
Hyperaeus? roadside.
nymph Hyperaeus complex — same.
Melanoplus short winged — are
two species represented here?
on edge of woods & lots — very
active — all sizes taken.
Mel. femur-rubrum ♀ — fair ♂ ♀
fair and roadside
Mel. bivittatus — fair ♂ fair.
Amblycorypha rotundifolia one female
in field woods.
Conocephalus. — 2 sp.: in grass &
weeds in fields
Neoconis — 2 sp. — in grass on
ground — quite active — mostly
adult

45 + 94 = 139
15 + 6 = 21
160

1938.26 3-4 miles S.W. of Romney, Hampshire Co., West Virginia. 600 feet.
September 4, 1938. (R.)

Hillside slope with open pine woods with short "wire" grass. — practically barren Hillside pasture with grasses and weeds. thistle, some Rubus, etc. —
Spring with marshy ground, & lush vegetation.

Tettigidea lateralis 1 adult.
Nomotettix ? — on bare ground
Chortophaga viridifasciata — 1 ♀ & several juvs (2nd generation) — one adult seen — in grass and weeds.
M. pipiscens (S. Lat.) — several adults seen — some taken — in low burnt grass and on ground.
Encoptolophus sordidus — very few seen in low grass, etc.
Dissosteira Carolina: only 1 ♀ seen — ranged from road
Opeia obscura, both — a few seen — very active.

Schistocerca americana + 1 adult seen
+ Syrbula admirabilis — 1 ♂ swept roadside.
Melanoplus punctulatus ♂ or
" femur-rubrum — scattered in weeds — particularly roadside
Scudderia furcata ? — very few in high weeds.

Orchelimum sp. rather common in
lush vegetation in clearings.
— stridulating violently
Conocephalus sp.1. — long exserted ♀
short tegmina ♂
Conocephalus sp.2. — short exserted ♀
long tegmina ♂
both rather common in clearings
Neonbius (2 sp.?) rather common in
low bunchgrass on ground — all
seem adult.

46 + 139 = 185
15 + 21 = 36
221

1938.27. 2 miles North of
Franklin, Pendleton Co., West Virginia.
1500 feet (?)?? September 4, 1938 (K.)
Stream bottom — open wooded area
with Maples, Willow, some Pine —
stony cobble from stream deposit.
small damp area with rush — lush
vegetation and some reed —
+ old field + roadside with weeds.
Acrydium sp. nymph from grass etc.
near moist areas.
Melanoplus bivittatus ♀ - all seen in
low weeds
Melanoplus differentialis rather
common in high weeds in damp area

Melampyrum americanum — frec
in various situations — quite certain.
Pedicularis canadensis rapidly spreading from
burnt vegetation
Orobanche sp. frec in burnt vegetation
Cnocephalum paradoxus 1 ♂ — all seen
in grass.
Cnocephalus sp. 12 — short leg. &
relatively long corpuscle — all seen
in last weeks.
Microcentrum — 19 in tall weeds in
damp area — all seen.
Xiphidium sp. — in short grass & on
ground — not common.
Orchelimum sp. — frec in low weeds.

18 + 18 = 203
7 + 27 = 42
36
245.

1938.28. Pass of North Fork Mt. — between
Franklin & Riverton, Pendleton Co., West
Virginia 3600 ft. (alt. 3592)
September 4, 1938. (R.)
Woods of Oak, (~~predominant~~ predominant
also Hickory, & Chestnut — under cover
of ~~oak~~ scrub oak, huckleberry,
Compositae, etc. — not many ferns

Diapheromera femorata - quite common
in low Oak areas.
Nemobius fasciatus - swept from
low cover.
Spharagemon bolli - quite common
in grass
Melanoplus short-winged - macropterous type?
17 all seen in low huckleberry
Melanoplus short-winged - 10 of
viriclipes type seen but low-
scudderia 2 spp.? - a few in
taller shrubs - occasionally in
huckleberry
Pteridophyllum. canbifolia - few in
oaks. 10-15 per high - usually
in crotch near top - all
stridulating.
Amblycorypha pteridyfolia - few
in taller shrubs
Nemobius sp. - few on ground
all seem adults.
No signs of Tuberculina or Cryptodelia
- Corpatux not quite typical for
them but if present would bear
been found.

27 + 203 = 230
4 + 36 = 40
270

1938.29. 4 Miles East of Elkins, side of Cheat Mountain, Randolph Co., West Virginia, 2300 feet. Sept. 4, 1938 (R.)

Old field growing up with young maples, ferns, rubus etc. much dead wood, litter, etc. on ground. stumps & burnt area also present.

Tetraglochin latralis - 1 sprig

Xanthoxylum americanum - 1 sp. low grass

Dichromena viridis 1 sp. grass and leaf - roadside

Chloranthus conspicuus - 10? seen on old stump & leaf

Melampyrum lineare Desr. - quite common

Mel. americanum? - few roadside

Aconitum - 2 spp.? (Baneberry 1 sp.?) few in ferny fens & Hellebore,

Conocephalum sp. 1 sprig

Xanthoxylum - one on ground

Amblystegium corypha-phyllum - 1 sprig

16 + 230 = 246

0 + 36 = 36

282

1938.30. State line West Virginia - Maryland, on route 50 — 3 miles east of Accident, W. Virginia, Preston - Garrett Co.; 2450 feet, September 5, 1938.

Open oak woodland, with practically low scrub oaks, locust + blue grass. Roadside with weeds and grassy - also a small damp area with more or less lush vegetation

Asparagamon bolli - rather rare in low open cover

Melanoplus femur-rubrum - few in low growth of weeds and grass

Melanoplus luridus keeleri - few - some in lush vegetation.

Scudderia sp or spp. - few in lower branches of oaks, quite active.

Amblycorypha rotundifolia - few in grass + weeds - also in branches of oaks.

Orocephalus sp. - few to very few in damp area

Orchelimum sp. - rare in lush vegetation.

Neoconocephalus sp. - none yet from weeds

11 + 246 = 257

40 + 36 = 76

303

1938.31 5 Miles ~~North~~ South of Keyser — between Accident and Keyser, Garrett Co., Maryland, 2850 feet. 9/5/38
2nd growth of Oak, Maple, Chestnut, &c. Prunus (?) & roadside with, weak, Rubus, ferns, grasses, &c.

Dichromorpha viridis — several in roadside and low growth

Chorthippus longicornis — several in roadside and low growth — not as common as D. viridis.

Dipthulella species(?) — few roadside

Melanoplus femur-rubrum ? or
mexicanus — in
woods along road

Melanoplus luridus Scudderi — few along road.

Melanoplus bivittatus — in woods

Tubus & roadside — many
apparently killed by fungus

Melanoplus differentialis — not seen
a lot — on Rubus

Melanoplus walshii — except from
low growth

Scudderia sp. or spp — rather general
— quite numerous

Nehobaena sp. few on ground
& in low grass, &c.

44 + 257 = 301
5 + 46 = 51
352

1938.32. Side of Sideling Hill Rt.,
4½ miles East of Belle Grove, Allegany
Co., Maryland, 1250 feet.
IX.5.
Oak, Hickory, Cornus — sapling
Tulip, Chestnut, etc., with low
cover of weeds, etc + roadside.
Melanoplus luridus luridus —
uncommon on slope of fill with
low cover.
Melanoplus walshii — 1 ♀, all
seen, in low cover.
Melanoplus short winged — few
may adult, in low cover and on
side of fill.
Acudelena sp. flushed from
oak.

oj + 301 = 310
1 + 51 = 52
362

310
137
173

To & incl. 1939. 177.

	Stations in State.	Work collected
Maryland	1	14
West Virginia	15 ~~17~~	270 ~~267~~
Virginia	20	441 ~~192~~
Kentucky	3	74
Tennessee	17	305
North Carolina	13	484
South Carolina	1	37
Georgia	5	81
Alabama	12	381
Mississippi	4	169
Arkansas	23	1245
Oklahoma	10	776
Louisiana	3	105
Texas	14	974
New Mexico	40	1125
Arizona	4	109

1939.

1939. 1 South Mtn. road crossing, E. of Boonsboro, Washington Co., Maryland. July 29, 1939. Eclec. (by aneroid, checked at summit mark) 750 feet at collecting point. (12-12.) Mat side of ridge old weedy roadside clearing, flanked by woodland on steep slope. Tall grass and weeds, with tangles of blackberries, much sumac and scrubby small hard trees. Dry wet, after shower, no sun, little stirred up and almost nothing moving otherwise. Also miscellaneous other insects picked up at base of cut shaly bank slope on opposite side of road.

Diaphenomma. 1 juv. swept from hazel.

Phissodactira carolina. 1 ad. flushed from brush.

Melanoplus bivittatus. Three males taken, 1 ♀. also seen, in tall grass & weeds.

Melanoplus spec. Juv. In grass & weeds. Moderately numerous. Several species?

Amblycorypha oblongifolia. One male flushed in weeds.

Conocephalus fasciatus 1 ad. ♂ taken in " spec. Juv. Numerous in grass & weeds.

Orchelimum sp. Juv. Numerous.

Gryllulus assimilis Juvs. seen.

Neonchus sp. Juvs. seen.

Acanthus sp. Juv.
Arth. 14
Other ins. 29

1939. 2 Three miles S. W. of Martinsburg, Berkeley Co., W. Va. Elev. 360 feet. July 30, 1939. (R. & R.)

In rolling grass-up cowpasture & cleared deciduous forest land. Smith chainly blackberries, sumac and Smilax - Lov spreading Agrostis - in ground, scarce Dactylium - ~~few in th~~ numerous locally - swept from ground.
Lycosidae - few in short grass, all adult.
Clubionids - few, near scattered log chips, all adults.
Euophrys - 1 adult seen & taken. Juv. common in grass and bush.
Hippasa - ♯ juv - swept.
Sphasgenus billi - adults, few. no juv.
Dictyna alutacea. Three adults taken. A few others seen. Flew into bushes.
Dictyna arnicana? 1 juv only.
Melanoplus mexicanus. Abundant, with adults & juvs.
Melanoplus spretus. Few adults and juvs.
Melanoplus luridus. Juvs, ready for last moult. Usually in bushes.

1939.2 (cont.)

Scudderia sp. 1 juv. - all stem, on blackberry bush.

Micrurentrum. 1 juv. all stem, on blackberry bush.

Amblycorypha 1 adult - all stem, on blackberry bush!

Orchelimum vulgare. 1♂, 1♀, tempt separately.

Cyrtophyllus - all juvs.

Oecanthus - all juvs, terminal species at least - tempt.

With. 78 + 14 = 92

Other ins 21 + 29 = 50

1939.3 Near north end of Third Hill Mtn. near Sleepy Creek, Morgan Co., West Va. Elev. 625 feet. July 30, 1939. (R. - R.)

In grassy pasture (hay) on slope, at edge of open second-growth deciduous forest, with scattered trees, thickets of blackberries, sumac, etc. Tall grass. Sparsely used. ~~Sphagnum~~ Sphagnum bolli. Terminal stem, one taken on ground

Dissosteira carolina. One.

Melanoplus bivittatus. Several stem, one taken

" appa. luridus. Juvs. Several.

Scudderia. Numerous, highly, in bushes.

Amblycorypha rotundi. Several in bush.

Orchelimum and Cyrtophyllus. Juvs. only

With. 10 + 92 = 102 Other ins. 272 + 50 = 322

1939.4, Top of Tonoloway Ridge above Great Cacapon, Morgan Co., West Va. Elev. 1000 feet. July 30, 1939. (R.-R.)
Ridge top with second growth forest of oak, hickory and scattered pine. Underbrush mainly oak scrub + laurel.
Almost nothing!
Diaphorura ♀♀. only, trapt from fine foliage and underbrush.
Melanophus mancus. 2♀, 1 juv. terr. all in dead leaves.
Nonostictix. 1 alary roadside.
Amblycampha rotunda. 1♀ trapt from oak scrub.

Arth.	5	+ 102 = 107
Collembola	4	+ 322 = 326

1939.5 New Forks of Cacapon, Hampshire Co., W. Va. Elev. 950 feet. July 30, 1939. (R.-R.)
Alary roadside edge of and in second growth woodland of oak, hickory and few pines on top of ridge.
Diaphorura. Juvs. trapt.
Nonostictix 1 juv. trapt on roadside edge of woods.
Sphyrotheca Tolli Lucas. on roadside edge of woods.
Melanophus mancus. 1♀. Litter. All terr. - none in woods

1939.5 (cont.)

Nemobius. Sum and juvs. taken.

Phyllodes Juvs. sum.

Orth. 16 + 107 = 117

Other ins. 6 + 326 = 332

1939.6 North Fork Mtn. between Petersburg and Ketterman (So. of Cabins), Grant Co., W. Va. Elev. 2200 feet. July 30. 1939. (R.-R.) On east side of ridge in second-growth deciduous forest, chiefly oak, maple + tulip poplar, with occasional pine. (In Monongahela Nat. Forest.) [Chestnut coming back.]

Parcoblatta. Juvs. under rotten wood.

Cryptocercus punct. A single individual in disintegrated rotten wood.

Nemobius. Imm. & ♀ from dry ground at forest edge (roadside)

Pellandplus sp. Juvs. on road edge.

Amblycorypha rot. ♀ from roadside edge of woods.

Atlanticus dad. ♂ jumping in leaf litter at forest edge.

Orth. 10 + 117 = 127

Other ins. 9 + 332 = 341

1939.7 Top of Ridge of Fore Knobs, near Cabins, Grant Co., W. Va. Elev. 4350 - 4600 feet. July 31, 1939. (R. + R.) deforested summit

Huckleberry and mint form thickets on top of ridge. Patches of conifer (spruce) forest left here and there. Open clearings, over

broken flabby rock of varying size, chiefly huckleberries, mint fern, hazel, laurel and some little rhododendron. Three spots, scattered on three miles of summit on forestry road, worked.

Kuboobhya. Few in one spot, 1♂, 2♀ taken, 1♂ lost. In waist-high growth, chiefly in but not confined to hazel.

Melanoplus short-winged. 1♂ - 1♀ lost. In low huckleberry. Ancil 1

Mel. mexicanus. In 2 spots in low corn.

" borealis. Few. - impt.

Atlanticus montivolus. 1♀ in low surface corn, winter grain, etc.

Orth. 11 + 127 = 138.

Orthoptera 36 + 341 377

1939. 8. East slope of the Fore Knobs, near Calvin, Grant Co., W. Va. Elev. 2700 feet. July 31, 1939. (R.-R.)

In low huckleberry corn on steep slope along edge of mixed woodland.

Paratettix innotatus. Under stones.

Xiphidium fasciatum. Several.

Melanoplus femoratus. Several in huckleberries.

Mel. borealis? Imm. in same situation.

Mel. mancus typ. 1♂, 2♀. In huckleberries

Appalachica. 1♀ on ground ~~near~~ between low huckleberry bushes.

1939.8 (cont.)

Sanguinaria. Sinuatum. Adult & taken from oak sent.

Ents. 13 + 138 = 151

Other ins. 9 + 377 = 386

1939.9 One mile south of Mouth of Seneca, North Fork of South Branch of Potomac, Pendleton Co., W. Va. Elev. 1500 feet. July 31, 1939. (R. & R.)

Cow pasture along river. Nothing adult but Rhinosimus and Telegeusidea. One taken of each. Cryptohelea & Ceratopogon gens. seen but not taken. Dicranomyia gen. seen but not taken.

Ents. 5 + 151 = 156

Other ins. 6 + 386 392

1939.10 "Birthplace of Rivers", Alum Grove, Pendleton-Pocahontas Co. Line most Va. Elev. 4160 feet. July 31, 1939. (R. & R.)

Roadside edge of deciduous forest. Nothing found on road

Chrysophaga - one in grass at road edge + all seen.

Agabus sulphanea 2 ditto. All seen.

Rhizotrogus sp. Roadside, adults - gens. Not taken.

Sphaeridium bolli. On cow growth at wetland edge.

Melanophila mexicana. Numerous - adults + gens - in roadside grass.

Melanoplus Hunt-winged. 3♂, 1♀ taken in mist fern at mud edge.

Orth. 16 + 156 = 172
Other ins. 8 + 392 = 400

1939. 11 Between "Birthplace of Rivers" and Thornwood, Pocahontas Co., W. Va.
Elev. 3500 feet. July 31, 1939. (R. & R.)
Roadside fungi of blackberries & sumac along forest edge. (Greenbrier drainage.)
Tettigidea. Swept from mixed conifers
Xiphidium " " " ✓ "
Conocephalus " " " ✓ "
Orphulella speciosa. Adults - juvs. not common.
Chorthippus Juv, in part adult, roadside.
Phaneroptera falcata. Roadside.
Microcentrum. Deciduous - not taken.
Melanoplus walshii. Numerous - general
" mexicanus Roadside - largely juv.
Melanoplus femur-rubrum Along a small stream.
Melanoplus viridipes group. Very local.
In low fungus, latter.
Conocephalus Juvs. only.

Orth. 45 + 172 = 217
Other ins. 19 + 400 = 419

1939.12 Four miles S. E. of Rencevert, Greenbrier Co., W. Va. Elev. 1900 feet. (August 1, 1939. (R.-R.)
Roadside tangle in ditch and old field on slope.
Melanoplus bivittatus. Imm & adults on hillside in tall grass, thistle, blackberry, etc.
Scudderia sp. In tangles. Others flushed, lit in tops of honey locust trees.
Conocephalus. All juvs. In ditch.
Orth. 7 + 217 = 224
Other ins. 34 + 419 = 453

1939.13 Near Rock Camp, Monroe Co., West Va. Elev. 1275 feet. Aug. 1, 1939. (R.-R.)
Roadside quarry of shale and hillside pasture with scattered brush.
Acrydium and Nomotettix. On hill slope in dried grass.
Tettigidea. Near drain of roadside.
Orphulia nitidula + A. saussurea. One each on hill slope.
Sphagemon planum? ~~One lot~~ Common (Imm. adult and less conspic. leg bands) On shale fragment in roadside quarry, but one of this type on hill slope.

Sphaerium vollei. Un hill slope only
Hirudinea. Common. Not taken.
Enoptolophus sp. Juv. jaws. on hill slope
Melanoplus mex. Numerous as adults.
Juvs.?
Mel. luridus. Numerous jaws. - a few
adults. Un hillslope.
Scudderia. sp. Hillslope.
Conocephalus spp. Juvs. In high weeds
on roadside - in roadside drain.

Orth. 40 + 224 = 264
Other ins. 24 + 453 = 477

1939. 14 Near Kellysville, Meigs
Co., W. Va. Elev. 1650 feet.
Aug. 1, 1939. (R.-K.)
Roadside old field grown high with
weeds & grass.
Hirudinea. Numerous.
Melanoplus mex. & femur-rubrum
Numerous.
Mel. bivittatus. Few
Orchelimum vulgare. 10 in tall grass
Acanthus - spp. Juvs. & adults.
Tarsal spines? Ampt.

Orth. 8 + 264 = 272
Other ins. 6 + 477 483

1939. 15 Near Bluefield, Mercer Co., W. Va.
Elev. 2800 feet. August 1, 1939.
(R.-R.)
In old field on hill slope. ↑ little adult.
Corylulilla. Few. | Tall grass & weeds. Blackberries, thistle, etc.
Sphagnum Utilis Few, on slope.
Melanoplus mex. Few adult.
Melanoplus sp. Few. Abundant.
Orth. 13 + 272 = 285
Other ins. 4 + 483 = 487

1939. 16 Rocky Gap, Mts., Bland Co., Va. Elev. 3800 feet. Aug. 1, 1939.
(R.-R.)
↑ Steep slopes close to summit of ridge. ↑ Slaty limestone with medium height forest cov. little surface moisture on acct. of steepness.
Sphagnum Utili: —
Orth. 1 + 285 = 286
Other ins. 3 + 487 = 490

1939. 17 Clinchfield, Russell Co., Va.
Mts. Elev. 1950 feet.
Aug. 1, 1939.
In narrow valley, with wooded slopes and flow. Maples, some hemlock, tulip poplar, alder, etc.
Parcoblatta Lata. 1♀ crawled into funnel trap.

Parcob. pensylvanica ♀ in molasses trap.
Nadocrocus punctatus Sev. in molasses traps.
Cenothophilus sp. Sev. in molasses traps: in traps. Mostly, Phyllophaga ~~fervida~~ aplodina, galerita in Arth. 9 + 286 = 295 etc. May flies
Other ins. 37 + 490 = 527 by light.

1939.18 Same as 1939.17 but August 2, 1939. (R.-R.)
Collecting done on the Emma slopes immediately about camp
Carychium. Sev. on grass.
Tetrigidea Cat. typ. Few.
Tetrigidea meotenic? Scattered on grassy slope, upp. jun. but clearly not T. lateralis!
Symbiala. Jun. only.
Chortophaga Fairly numerous, ads. + jun.
Appalachia plicifera. One on grassy bank.
Cyphissa sulphurea. One on grassy bank.
Lippiscus nigrosus. Juvenile.
Spharagemon planum? One.
Melanoplus femur-rubrum. Numerous ads. + jun.
Mel. bivittatus. Few. Ads. + jun.
Arcyptera microptera. One male in tall grass. Bivittatus heard

1939.18 (cont.)

Conocephalus sp. Juvs. abundant.
Nemobius Juvs. only.
Orth. 39/32 + 295 = 334
Other ins. 20 + 527 = 547

1939.19 One mile east of Tacoma, Wise County, Va. Elev. 2200 feet. August 2, 1939. (R.-R.)

Roadside edge of deciduous forest.
Neotettix femoratus. One empt from ground.
Tettigidea Cat. Two on ground.
Tettigidea microcosmic sp. A limited number. Imm. & adults.
Syrbula admiri. Juv. empt in woody spots.
Melanoplus pictus. One empt from tall coarse grass and weeds.
Arphia sulphurea Imm. in tall grass growth com.
Arphia xanthoptera. Juvs.
Encoptolophus Juvs. only
Hippiscus rugosus. Numerous, hiding in grass roots. Two adults (♂) (3.7.8) with reddish wings. A few juvs.
Chortophaga. Numerous adults and juvs.

Sphagnum Wilfi. Abu on ground - all
dead.
Mnium punctatum. Numerous
along roadside cut bank - also frequent
among trees.
Mel. Brittatus. Abu in tall weeds.
" lucidus Few adults + juvs.
non fruiting.
Mel. diffinitalis. 2 juvs. Imps.
" Hunt-ringed. 10/29, taken
among low wild strawberries on ground.
18 also seen + lost.
Schistura unca. 1 very small juv.
Imp.
Scaphinia. Abu taken in brush.
Cinclidium Juvs. only.
Limbocrypha rotund. Found in low
- brush.
Physcomitrium pulch. 1 dupl from low
bank & cult.

Earth.	70	+ 334	= 404
Cotton ins.	19	+ 547	= 566

1939. 20 Between Glamorgan and
Pound, Wise Co., Va. Elev. 1,750 feet
August 2, 1939. (R.-R.)
Roadside with stream and low
iron, backed by dead, woodland.
Almost nothing, either adults or juvs.

1939.20 (cont.)

Orphulella pelidna - One empt.
Decumtinus latipennis. One juv. empt.
Phyllosyrtus pulch. One empt.
Orth. 4 + 404 = 408
Other ins. 6 + 566 = 572

1939.21 Pine Mtn. betw. Whitestone and Cumberland, Letcher Co., Kentucky.
Elev. 2450 - 2550 feet. Aug. 2, 1939.
(R. - R.)
Steep limestone slopes with thin top soil and cover of oak, a few pine and other shrub. Clumps of Andropogon, sumac, smilax, etc. Ground bottom very dry.
Nomotettix. Many males on spot of bare ground.
Orphulella pelidna. Two.
Spharagemon bolli. Two - one other last.
Schistocerca alutacea. Two - one in oak scrub and one on Red pine.
Melanoplus fasciatus. One ♀ on ground.
" luridus. Two adults, ♂ also two juv ♂♂.
Oecanthus Juv. empt.
Conthophilus. One from decaying wood.
Orth. 22 + 408 = 430
Other ins. 9 + 572 581

1939.22 Near Arcton, Lee Co., Va.
Elev. 1850 feet. Aug. 3, 1939. (R.-R.)
Grown-up old fields and hillslope.
Virtually all cutover with tall weeds.
Everything swept. Overcast and
threatening rain, nothing stirring.
Orphulella pelidna. One adult.
Melanoplus sp. Juvs.
Amblycorypha rotundifo. One adult.
Conocephalus fasc. Numerous.
Oecanthus sp. Juvs. numerous.
Phylloscirtus. One juv.
Orth. 10 + 430 = 440.
Other ins. 25 + 581 = 606.

1939.23 Gap in Powell Mtn. between
Arcton and Rufffield, Lee Co., Va.
Elev. 1350 feet. August 3, 1939. (R.-R.)
Roadside weeds. Overcast. Little moving.
Hippiscus Juv. One.
Orphia Juv. On ground.
Schistocerca Juv. Swept.
Melanoplus femoratus Juvs. Swept.
Oecanthus spp. Juvs. Swept.
Orth. 6 + 440 = 446.
Other ins. 11 + 606 = 617.

1939. 24 Two miles E. of Rose Hill, Lee Co., Va. Elev. 1350 feet. Aug. 3, 1939. (R. - R.)

Roadside mud and grass and outcrop of limestone. Overcast, chilly. Virtually nothing running.

Schistocerca amer. Juv.
Melanoplus sp. Juv. 1

Orth. 5 + 446 = 451
Other ins. 8 + 617 = 625

1939. 25 East side of Cumberland Gap, Lee Co., Va. Elev. 1350 feet. Aug. 3, 1939. (R. - R.)

Old field at edge of road and open deciduous woodland on hill slope.

Ictalidea neotenia. Adults - juvs.
(4) Swept along edge of old road pairs.
Syrbula admi. Juv. Swept in old field.
Melanoplus politus. One in old field.
Hippiscus rugosus. Adult in old field.
Encoptolophus. Juvs. in old field.
Chortophaga. Adult - roadside.
Melanoplus diff. One ad. ♂ - roadside, another seen in old field.
Melanoplus mex. One adult in old field.
Schistocerca amer. Juvs. Numerous.

Scudderia. One rupt in old field.
Neoconocephalus One juv. rupt.
Conocephalus strictus One ♀ nearly adult - rupt.
Conocephalus sp. Juvs. numerous.
Amblycorypha uhleri. One, rupt roadside
Orchelimum sp. Juv. rupt.

Orth.	26	+ 451 =	477
Other ins.	3	+ 625 =	628

1939. 26 Three miles So. of Wasioto, Bell Co, Kentucky. Elev. 1050 feet. Aug. 3, 1939. (R. + R.).

Alms roadside edge of mixed deciduous forest of oak, hickory, maple, beech, magnolia, tulip poplar, sweet gum, etc. Undergrowth chiefly smilax.
Conocephalus. Rupt found on ground com.
Tettigidea parvipennis. Locally numerous, and usually associated with wild strawberry and similar covering forest edge. Both adults & juvs.
Truxalis. Obs. Common in small bare spots along roadside.
Melanoplus viridipes. Few, juvenile in distribution. One long winged.
Melanoplus sp. Obs, but not taken. Radial.
Melanoplus femoratus. Juvs. few.

1939. 26 (Cont.)

Melanoplus mex.(?) Com., roadside.
Centhophilus 3 spp. Largest and smallest under stones in forest. Medium sized from under bark.
Cunocephalus sp. Imm. Rare.
Neanthes sp. Imm. Rare.

Orth. 43 + 477 = 520
Others. 10 + 628 = 638

1939. 27 Wofford, Whitley Co., Kentucky.
Elev. 800 feet. Aug. 3, 1939. (R. & R.)
Mixed deciduous woodland on steep slope, with a few pine, soil where bare rather sandy. Very wet, after rain & mm.
Tettigidea neotanica. Com on leaf of low com. All sent.
Melchromorpha. 15, 1 juv. in roadside drain.
Sphagnum Willi Com when in moss, another rare.
Short-winged Melanoplus. One ♀ in low ground com. Although carefully search was made then and after for a male, no more instid. of the species were seen.
Atlantrius. 2 ♂ on dead leaves in woods.
Neanthes sp. Lat. sp. Juv. Rare.

Orth. 9 + 520 = 529
Others. 3 + 638 = 641

1939. 28 Jacksboro, Campbell Co., Tenn.
Elev. 850 feet. Aug. 4, 1939. (R.-R.)
In mixed pine and oak woods on slope.

Melchromorpha viridis. Few adults and juvs. Edge of woods.
Chortophaga viridifasciata. Seen but not taken. Wood edge.
Sphenarium Bolli (?) Seen but eluded capture.
Schistocerca amer. Juvs. Few.
Melanoplus femurrubrum. One adult and few juvs. Wood edge.
Melanoplus bivittatus. One seen but not taken. Wood edge.
Melanoplus differentialis One taken - roadside.
Amblycorypha sp. Juvs. Edge of woods.
Scudderia sp. Seen but eluded capture.
Conocephalus exigua. One ♀ tenpt at wood edge.
Orchelimum sp. Juvs. Tenpt.

Orth	13	+ 529 =	544
Other ins.	29	+ 64 =	670

1939. 29 Near Coal Creek, Anderson Co, Tenn.
Elev. 1000 feet. Aug. 4, 1939. (R.-R.)
In Roadside weeds. Chortophaga Adult.
Melanoplus Seen. Schistocerca Juv.
Conocephalus Juvs.

1939. 29 (cont.)

Orth. 5 + 544 = 549

Other inv. 6 + 670 = 676

1939. 30 Between Norris Dam and Norris, Anderson Co., Tenn. Elev. 650 feet. August 4, 1939. (R.-R.)

In mixed woodland on slope. Undergrowth sassafras, oak, maple and tulip saplings and much poison ivy.

Parablatta lata. 1♀ under plank by roadside.

Ectobiidea neotanica. Imm. & nymph from ground.

Chortophaga Vhe, near roadside.

Pharangeum Vlli. Fem, near roadside.

Schistocera amer. Imms. Numerous.

Neoconocephalus sp. Imm. Nymph.

Conocephalus sp. " "

Amblycorypha " "

Camptonotus car. 1 ad. & nymph from low corn.

Hapithus 1 Imm. Nymph from low undergrowth with Orchard (same host).

Orchards 1 Imm. & to Hapithus.

Orth. 17 + 549 = 566

Other inv. 21 + 676 = 697

1938.31 Ten miles W. of Sevierville, Sevier Co., Tenn. Elev. 650 feet. Aug. 4, 1939. (R.-R.)
Roadside woods in and on edge of mixed woods.
Acrydium. Impt from ground.
Tettigidea. " " "
Amblytropidia occid. 1 juv. - roadside edge of woods.
Chortophaga. Roadside woods.
Dissosteira car. Seen, not taken.
Melanoplus scudderi. One male, in roadside woods.
Melanoplus sp.? (prob. scudderi) Juv. Numerous, roadside
Ischnoptera ann. Juvs. Numerous - roadside.
Amblycorypha uhleri. One ♂ impt from roadside woods.
Conocephalus sp. Juvs.) Numerous.
Neoconocephalus sp.? (2 ♀♀?) Juv. Immat.
Orchelimum 1 juv. Impt.
Gryllulus assim. 1 ad. Roadside on ground.

Orth. 27 + 566 = 593
Orthn. nis. 31 + 697 = 728

VIII, 4, 1939

1939. 32 Chimneys Camp, Great Smoky Mountains Nat. Park, Tenn. Elev. 2900 feet. At light at night. Amblycorypha stalked by sound.
Orth. 1 + 593 = 594
Other ins. 70 + 728 = 798

1939. 33 The Loop, Newfound Gap Road, Great Smoky Mountains Nat. Park, Tenn. Elev. 3850 feet. August 5, 1939. (R. + R.)
Relatively long shoulder with grass and low plants bordering busy street.
Tettigidea lat. Hammarae.
" neotanic. One only - on bare ground.
Amydinum jun. One in burr.
Dichostira sar. Seen - not taken.
Chortophaga. Adult seen, juv. taken.
Melanoplus mex. Scattered - few adults.
" diff. Two juvs. Stupt.
" luridus? Juvs. only. Stupt.
Scudderia sp. Blackish juv. Stupt.
Acanthus sp. - Juv. Stupt.
Orth. 23 + 594 = 617
Other insects 36 + 798 = 834

1939. 34 Clingmans Dome, Great Smoky Mts. Nat. Park, Tenn.-N. C.
Elev. 6300 - 6642 (summit) feet.
Aug. 5, 1939. (R. + R.)
Collecting near trail from auto road end (Forest Ridge) to summit of peak.
In small clearings in spruce forest

grown up with Rubus, mnt fern, etc.,
in dense spruce forest and under
bark and in rotting wood in latter.
Acrydium. In clearing and in forest.
Few!
Pettigidea Lat. In all conditions.
Chortophaga viridif. 1♂, 1♀ in bracken
under spruce near top of peak.
Conocephalus 1♀ swept from bracken
and mnt fern in light hole in
spruce forest
Ceuthophilus. Under bark flat on
ground and in crevice in dead
timber.

Oct. 18 + 617 = 635
Oct. 19. 135 + 834 = 969

1939. 35 Indian Gap, Great Smoky Mts.
Nat. Park, Tenn. — N. C. Elev. 5266 feet
Aug. 5, 1939. (R. & R.)
Rather steep grassy grade on Tenn.
side of pass, bordering edge of
adjacent spruce and deciduous forest
and in ~~the~~ nearby pure spruce forest.
Edging undergrowth in pine witch-
hazel and alder.
Pettigidea. Scattered in open and
edging undergrowth.
Chortophaga Few adults in grass.

1939.35 (cont.)

Blissostira can. Seen, but not taken.
Melanoplus mexic. Numerous in grass.
Mel. short-winged sp. One ♀ on stony rubble in grassland, extended search failed to reveal a male or another female.
Mel. walshii. Local in tall grass.
Zubovskya. One male under bark slab at forest edge and 2 ♀ in foliage of forest edging undergrowth. Extensive search failed to locate more.
Schistocerca americana. Two adults in grass.
Conocephalus sp.? Local in tall and short grass. No jaws. noticed.

Orth. 43 + 635 = 678
Other ins. 107 + 969 = 1076

1939.36 Between Newfound Gap and Smokemont, east side, Great Smoky Mts. Nat. Park, N. C. Elev. 2800 feet. Aug. 5, 1939. (R. & R.)
In roadside grass and waist-high plant comm.
Tettigidea. Impt from ground.
Orphulella? Impt.
Melanoplus sp. Jaws only. Impt.
Conocephalus brevipennis. Jaw. & tibia. Impt.
Orth. 10 + 678 = 688
Other ins. 28 + 1076 = 1104

1939.37 Smokemont, Great Smoky Mts. Nat. Park, North Carolina. Elev. 1500 feet. August 5, 1939. (R. & R.)
At light at night, except that all in alcohol were trapped in molasses juice. Canthophilus & Dichoptera in latter.

Orth. 4 + 688 = 692
Other ins. 22 + 1104 = 1126

1939.38 Three to five miles S.W. of Bryson City, Swain Co., North Carolina. Elev. 1050 feet. Aug. 6, 1939. (R. & R.)
In old fields and in open pine woods about light of way of abandoned railroad.

Nomotettix 1 swept along old R.R. right of way.
Neotettix 1 fem. 1 ditto
Tettigidea microcerus. Two swept from damp situation and in adjacent more grassy spot.
Dysnicta. fem. In old field.
Paratettix cucullatus fem. along R.R. right of way.
Orphulella. Imm. in old field.
Chortophaga. Adult - roadside.
Spharagemon bolli. Along old R.R. right of way - one flushed into pine tree.

1939.38 (cont.)

Melanoplus luridus. Ad. & juv. in old field and along R.R. right of way.
Schistocerca americana Juv. in old field.
Scudderia sp. Imag. from pine.
Amblycorypha rotundifolia. In old field.
Orchelimum vulgare. Juvs.
Conocephalus. Juv. Nymphs.
Neoconocephalus. Juv. Imgt.
Phylloscyrtus. Imgt ~~in thickets~~ from bushes along R.R. right of way.
Anaxipha exigua. Imgt ditto.
Acanthus. Juv. Imgt in old field.

With. 32 + 692 = 724
Other ins. 28 + 1126 = 1154

1939.39. Between Topton and Robbinsville, Graham Co., North Carolina. Elev. 1800 feet. Aug. 6, 1939. Roadside slope and drain banks. Chief cover blackberry bushes and grass.

Nomotettix. 4 nymphs Imgt from ground.
Amydinus. Imgt from ground.
Tettigidea lat. " " ✓
Chortophaga. Two adults - ♂♂. juvs.

Asphia xanthoptera. Juv. on ground.
Sphagnum Willi. Hatched in low
woods.
Melanoplus mexicanus. Accas. adults.
" differentialis. One adult
in Hackberry bushes.
Mel. luridus. 1 ♂ ad., 2 juv. Sunset.
" Host-infected spines. 2 juv. molts
in instar preceding maturity taken in
low Hackberry bushes.
Scudderia juv. Swept.
Conocephalus juv. only. Sunset.
Neoconus fasc. Two adults.
" Cautionis? Juv. One
swept from low corn.
Melanoplus. ♂ 1 ad. in Hackberries.

Orth.	46	+ 724 =	770
Other ins.	13	+ 1154 =	1167

1939.40 Lake Santeetlah, Graham Co.,
North Carolina. Elev. 1025 feet.
August 6, 1939. (R. & R.)
Hill slope with grassy areas in tropics
with patches of deciduous woodland, and
grassy areas with small scattered
pines.
Nomotettix Swept in tall grass.
Tettigidea Lat. " " " "
" parvipennis? Hilltop

1939.40 (cont.)
Syrbula. 1 ad. + two. juvs. in tall grass.
Orphulella adult, in grass.
Chortophaga. Adults and juvs. Scattered.
Melanoplus spp. juvs.
Schistocerca amer. juvs.
Amblycorypha uhleri. 1 ad. + nymph from tall grass.
Neoconocephalus sp. juvs. + nympt.
Orth. 40 + 770 = 810
Other mis. 40 + 1167 = 1207

1939.41 Mt. side N. Neals Gap, Great Smoky Mts., Blount Co., Tenn
Elev. 1850 feet. Aug. 6, 1939. (R.-R.)
Open but dead virgin deciduous forest with scattered pine. The chief forest components seemed to be oaks, maples, tulip poplar, some chestnut and occasional magnolia. Undergrowth chiefly oak sprout, laurel and rhododendron, with blackberry brakes.
Nomotettix. In fair no. + nympt from bare ground under forest trees.
Tettigidea microptic? + nympt as Nomotettix. Less numerous.
Melanoplus scholii. 2 ♂, 1 ♀ singly, in undergrowth.
Melanoplus short-winged. 1 adult ♂ and two adult females taken, along

with a number of both sexes in instars preceding maturity. In and beneath frost undergrowth Anthyconypha rotundifolia - 1 imp ♂. from undergr. in frost.
Cunophalus insiferum ? Both sexes adult, in frost undergrowth. ♂ Centhophilus. Two pairs taken from a single dead stump. Extensive search in similarly suitable situations produced no others.
Neonetus: In and under undergrowth in frost, as well as among dead wood chips.

Meth.	60	+ 810	= 870
Cetenius.	11	+ 1207	= 1218

1939. 42 Between Madisonville and Sudden, Monroe Co., Tenn. Elev. 650 feet. Aug. 7, 1939. (R. R.). Open deciduous woods, chiefly oaks, with scattered undergrowth mainly oak sprouts and short grass and moss here patches.

All males were stridulating and were perched on or near the main stem of R. rhododendron. Females were usually on the leaves of the same plant although 3 of that sex were found on trunks of oak trees.

Nemotelus, Anydrophus and Tetragoidea on ground, both bare and with dead leaves.

1939.42 (cont.)

Chortophaga. One adult, tmpt.
Hybanagnum Wlk. One adult, on ground.
Melanoplus sp. Juv. Tmpt from dead leaves and from ground.
Orth. 16 + 870 = 886
Orthoptera. 4 + 1218 = 1222

1939.43 Four miles S.W. of Cleveland, Bradley Co., Tenn. Elev. 550 feet. Aug. 7, 1939. (R. & R.)
In mixed pine and ~~oak~~ deciduous woods. Everything quite wet, they meant little moving.
Melanoplus juv. Few on ground.
Schistocerca amer. Juv. Tmpt.
Neoconocephalus Juv. "
Oecanthus. Adult. Tmpt.
Orth. 6 + 886 = 892.
Orthoptera. 7 + 1222 = 1229

1939.44 Chattanooga, Hamilton Co., Tenn. Elev. 750 feet. Aug. 7, 1939. (R. & R.)
About 4 miles N.E. of center of city. Sandy mixed forest on sandy loam. Along roadside was an area of nearly wet gutter, water-laid gravel and sand.
Diapheromera 2 juv. - 1 tmpt from foliage in woods, the other on a pine log.

Tettigidea and Tanydium. Capt from ground surface in woods.
Chortophaga Ads. & juvs. Clearings.
Dissosteira Carolina. Clearings in woods.
Mastobregma thomasi. Numerous on roadside grass and sand area. Few woodland clearings. 7 taken.

~~Acrididae~~.
Schistocerca americana. Juvs. Scattered.
Melanoplus mex. Adults. Roadside.
" punctulatus? Juvs. In woods.
Scudderia texensis. Ads. & Nymphs.
A number seen in woods.
Amblycorypha oblongifolia. 4♀ from oak scrub.
Neoconocephalus. Juvs. Swept.
Xiphidium. " "
Orchelimum. Juvs. "
Hapithus. Juvs.

Orth. 33 + 892 = 925
Other ins. 17 + 1229 = 1246

1939.45 Chattanooga, Hamilton Co., Tenn. Elev. 706 feet. Aug. 7, 1939. (R. & R.) Attracted to lights at night. Microcentrum.

Orth. 3 + 925 = 928
Other ins. 60 + 1246 = 1306

1939.46 Lookout Mtn., Chattanooga, Hamilton Co., Tenn. Elev. 1150 - 1250 feet. Aug. 8, 1939. (R. & R.)

In mixed deciduous forest with a few pines, on steep slope. Undergrowth of mixed character but reasonable dense.

Diaphromera. Juvs. of various stages. Numerous in undergrowth.

Melanoplus walshii. 1♀ from dead leaves on ground in forest.

Mel. sp. Juv. Gympt.

Schistocerca sp. Juvs. Gympt.

Amblycorypha walshii. 1 ♂ from foliage.

Atlanticus americanus 1♂, 1♀, skipping in very low cane or on dead leaves.

Neoconocph. Juvs. Gympt.

Camptonotus. One adult Gympt from shrubbery - high foliage of undergrowth.

Alicanthus sp. Juvs. 2 sp.? Gympt.

Tympanitus. Juvs. Gympt.

Orth. 22 + 928 = 950

Other ins. 12 + 1306 = 1318

1939.47 Slope to south of Hales Bar Dam (near Guild), Marion Co., Tenn. Elev. ~600 feet. Aug. 8, 1939. (K. & R.) In mixed deciduous and pine woodland, with heavy undergrowth, largely oak scrub.

Diapheromera. Jnvs. in various stages.
Inst from undergrowth.
Tettigidea. Clue inst from ground.
Chortophaga. Jnvs. Inst & mar road.
Xiphidiopsis Wlli. Jun and Inst.
Ischnoptera amer. Jnvs. in various stages. Jmmat.
Melanoplus walshii. 1 ♀ in undergrowth.
" sp.? Jnvs. in undergrowth.
" differentialis In lush vegetation mar road.
Scudderia. Jnvs. Inst from undergrowth.
Neoxabea. Jnvs. Inst
Orth. 14 + 950 = 964.
Other ins. 15 + 1318 = 1333

1939.48 Stevenson, Jackson Co., Alabama. Elev. 600 - 300 feet (? aneroid ff?) Aug. 8, 1939. (R. + R.)
In mixed deciduous scrub forest, with a few red jinipers. Undergrowth largely oak scrub.
Diapheromera. Numerous juvs. in undergrowth.
Melchrinoptera. 1 juv. in forest undergr.
Neoxabea. Jun but not taken.
Dissosteira Carolina. Jun (ma) clearly but lost.

1939.48 (cont.)

Schistura amer. Jms. Numerous.
Melanoplus Jms. Empt.
Scudderia. Adult in roadside weeds.
Acanthus. Jms. Empt.

Arth. 14 + 964 = 978
Other ins. 15 + 1333 = 1348

1939.49 Four miles W. of Scottsboro, Jackson Co., Alabama. Elev. 650 feet? (50 around but climb on Scottsboro.)
Aug. 4, 1939. (R. & R.)
In mixed oak and pine scrub woods. Soil very thin and granular. Surface with limestone slabs and exposed quite generally. Undergrowth low grass (marked mats in places) and many oak scrub of the next height ones.
Tettigids. All on ground.
Orphula xanthoptera. One jms. on ground.
Melanoplus short-winged. 2 ♂, 4 ♀ - 2 spp?
One dead Locusta on ground, on or about undergrowth and on rock slabs.
Amblycorypha rehni. One adult on low growth.
Neoconocephalus jms. In low growth.
Hapithus. Jms. Empt from undergrowth.

Arth. 14 + 978 = 992
Other ins. 1 + 1348 = 1349

1939.50 Five miles W. of Huntsville, Madison Co., Ala. Elev. ~~400~~ 800 ft. Among (but thick - may be ff) Aug. 8, 1939. (R.-R.)

In scrub oak woods with a few junipers. Undergrowth largely oak scrub. Also road drain with quite high weeds.

Erysiphales in road drain weeds.
Phragmonon. Uncommon in woods.
Chaetophaga. In road drain.
Mel. ? sundaei. ? Two ♂♂ in road drain.
Mel. sp. ? Two ♀♀
" differentialis Two in road drain.
Scudderia. Two in road drain.
Neoconoceph. Two in woods.
Conoceph. sp. Road drain and in woods undergrowth.
Orchelimum. Two. In road drain.
Phyllocnitus. Two from high undergrowth at edge of woods.

Orth. 26 + 992 = 1018
Other ins. 32 + 1349 = 1381

1939.51 Shoal Creek near Killen, Lauderdale Co., Alabama. Aug. 8, 1939. (R.-R.) 500 ft.

Micromethus flushed in woods. All others attracted to lights.

Orth. 4 + 1018 = 1022
Other ins 232 + 1381 = 1613

1939.5-2. Betw. Pride and Barton, Colbert Co, Alabama. Elev. 500 ft. August 9, 1939. (R.-R.)

In tall grass, blackberries, etc. on roadside and adjacent to same. Also cleared-out oak and pine woods. Latter, with undergrowth virtually non-existent, with almost nothing.

Brunneria. 4 in "sa" one-grass type in drain and on edge of adjacent railroad embankment.

Syrbula. Numerous in roadside drain.

Chortophaga. Few, along roadside.

Hippiscus Numerous along roadside in woods. One red wing individual seen and lost.

Schistocerca amer. | One adult in roadside bush right.

Melanoplus diff. A number, along roadside.

Mel. femur-rubrum. Numerous, roadside.

Scudderia. Seen and lost.

Conocephalus strictus. Few adult in roadside right. Adult ♀ seen but lost.

Orchelimum. Few. - tmpt, roadside.

Orth. 35 + 1022 = 1057

Other ins. 10 + 1613 = 1623

1939.53 Margerum, Colbert Co., Alabama
Elev. 400 ft. August 9, 1939. (R. & R.)
Along margin of back-up of Tennessee
River, with salt grass and heavy weeds.
distributed banks. Nearly mixed decid. and
Tettigidea. On ground in salt marsh area yielded almost nothing
Syrbula. Numerous in muds.
Paliissotrina. Few but not taken.
Melanoplus diff. Few in taller muds.
" femur-rubrum. Few in muds.
" sp.? Juv. Scattered.
Scudderia fur. 15 in oak scrub.
Orchelimum. Juvs. In muds.
Neoconocph. " " "
Conocephalus fasc. In muds.
Hyllotalus. Under plank.
Orth. 34 + 1057 = 1091
Other ins. 18 + 1623 = 1641

1939.54 Burnsville, Tishomingo Co.,
Mississippi. Elev. 475 ft. Aug. 9, 1939.
In roadside muds with many black-
berries and in mixed deciduous
woods with rocky undergrowth - but
little oak scrub.
Tettigidea lat. Few on ground in
muds.
Tettigidea acutaenia. Ditto.
Amphia. One, roadside.
Paliissotrina. Few but not taken.

1939.54 (cont.)

Melanoplus diff. femur.
" sp. Invo. In woods.
Acanthus. Invo. Impt.
Napithus. Invo. Impt in woods.
With. 15 + 1091 = 1106
Other mis. 5 + 1641 = 1646

1939.55 Tennessee State Line, 4 miles near Invo. 10 Roads Co.
W. of Corinth, Mississippi. (Mat. from Tennessee.) Elev. 450 Aug. 9, 1939.
(R+R.)
In roadside tall grass and weeds along drain, with area of bare ground, and in mixed deciduous woods with scattered undergrowth.
Brunneria. Elm in tall grass. All stm.
Stagnomantis Invo. Impt roadside weeds
Allapheromera Invo. Impt from first undergrowth.
Punctatissima. From bare ground along edge of woods.
Syrbula. Invo. In roadside weeds.
Xiphidiopsis. Few, in roadside grass.
Orchestina. Seen but not taken.
Schistocerca amer. Invo. Impt.
Melanoplus diff. Adult. Roadside.
" sp.? Invo. In woodland.

Scudderia. Juv. Sympt along roadside.
Neoconocephalus. Juvs. Sympt in woodland.
Oecanthus Juv. Sympt.
Orth. 31 + 1106 = 1137
Othus. 9 + 1646 = 1655

1939. 56 Three miles E. of Bolivar, Hardeman Co., Tenn. Elev. 450'
Aug. 9, 1939. (R. & R.)
An slope with very tall grass and weeds, with numerous scattered low Opuntia, and edge of mixed deciduous woods on rolling ground.
Diaphoromera. 1 ad. ♂ and num. juvs. Sympt from undergrowth and woods along wood edge.
Tettigidea. Scattered, on ground.
Neotettix. On ground in Sympt.
Tyrbula. Adults. Juvs. Numerous, mainly in tall grass and weeds.
Mermiria. 2 ad. ♂ and juv. ♀♀ in very tall grass.
Amblytropidia. 1 juv. Sympt.
Schistocerca amer. Final juvs. in instar preceding maturity. Finals in distribution
Melanoplus mex. Finals.
" luridus. Few adts. On wood edge.

1939.56 (cont.)
Melanoplus diff. In tall grass.
" sp.? Imm. in woods.
Hesperotettix brev. One female in
tent grass and similar one
along wood edge.
Amblycorypha ubleri. Imm. & nymph.
Neoconocephalus Imm. & nymph species.
Nymph chiefly from tall grass.
Conocephalus Imm. Nymph from tall
grass and some in woods.
Odontoxiphidium. Several ♂♂ nymph in
tall grass.
Orchelimum calcaratum. 1 ad. ♂
nymph from tall grass.
Orchelimum sp.? Imm. ditto.
Orth. 82 + 113 = 7219
Other ins 16 + 1646 = 1662

1939.57 Six miles E. of Fairoaks
Cross Co., Arkansas. Elev. ~~325~~ 350 feet?
based on Memphis as 400 feet?. Aug. 10, 1939.
(R. - R.)
Low, open deciduous woodland with
undergrowth of high mixed weeds,
and roadside drain with standing
water and high weeds and grass.
Stagmomantis Imm. Nympt in woods.
Tettigidea and Paratettix. Nympt
in woods.
Syrbula. Abundant in woods undergr.

Klichromorpha. Klitto.
Urphulella. Few in mud & under.
Anphia xanthoptera. One in mud.
Hippiscus rugosus Klitto.
Ichistrema anale. Few adult but not rot.
Melanoplus Rhot-minged. 2 ad. ♂. In mud under & on ground.
Mel. femur-rubrum. Few in mud.
" differentialis. Few - one in mud & small along drain trench in tall mud.
Mel. bivittatus. Few in mud & along drain trench in tall mud.
Paroxya atlantica. Numerous in mud & along drain trench in mud.
Ambly corypha. Impt in mud.
Neoconocephalus. Few. Impt in mud.
Orchelimum. Few. ditto
Conocephalus strictum. Abundant in mud & along drain trench in tall mud
Conocephalus other species. Few. Abundant.
Xiphidium. 2 juv. Impt from mud & underbrush.

Orth. 190 + 1219 = 1409
Other ins. 5 + 1662 = 1667

1939.58 Seven miles E. of Augusta, Woodruff Co, Arkansas. Elev. 325 feet (in basin of 400 feet at Memphis). August 10, 1939. (R. & R.)

Roadside tall ~~grs~~ weeds and edge of mixed deciduous woods with grass and scattered bushes.

Stagmomantis. Juv. Incpt.

Tettigidea. Incpt.

Tyrbula. Numerous. Gen. nov.

Herpetinella. Abundant. Adults & juvs. on wood edge.

Melichromopha. Numerous, ~~gen. nov.~~ Chiefly adults.

Chortophaga. Few, roadside and wood edge.

Nippiscus rugosus. Wood edge.

Hisoostira sem. but not taken.

Melanoplus diff. Numerous, roadside weeds.

Mel. femur-rubrum. Roadside.

Amblycorypha wheeleri "

Neoconocephalus Juv. Incpt. from roadside weeds and orchestrini along edge of woods.

Conocephalus fasciatus. Adults. Incpt in weeds.

Orchelimum. Adults. Roadside weeds.

Neonetus. Adults. Along wood edge.
Haplothrix. Imm. Swept in woods and shady roadside
Meth. 71 + 1409 = 1480.
Other mic. 4 + 1667 = 1671.

1939.59. One mile N. of Bald Knob, White Co., Arkansas. Elev. 235
Aug. 10, 1939. (R. & R.)
In open deciduous woodland with grass, weeds, blackberry bushes, etc. no undergrowth.
Stagmomantis. Imm. Swept.
Ilidiphronomma. " Imm & ♀ Swept.
Tettigidea + Paratettix. Imm & ♀ Imm ground either taken in with sweep.
Syrbula. Common, rather general.
Herpetulella. Numerous adults + imm.
Melanoplus short-winged. Ad. & Imm on ground among dead leaves. Careful search revealed no other
Melanoplus sp.? Imm. Numerous.
" diff. Roadside and in woods among blackberries.

1939.59 (cont.)
Sanddune. Juns. dumpt.
Amblycarpha rubini. A few in
low growth.
Nuccaspaphalus sp. Juns. in woods.
Archidinium. Adults in blackberries.
Juns. gunnal.
Cunnephalus - Juns. gunnal, dumpt.

Arth. 56 + 1480 = 1536
Arthr. in. 12 + 1671 = 1683

1939.60 Three miles S. of Batesville,
Independence Co., Arkansas.
Elev. 400 350 feet (on train of Memphis trip
400).
Aug 10, 1939
Roadside edge of mixed deciduous
woods. Virtually nothing in woods.
Roadside with weeds usually not over
a foot high, and dotted with clumps
of blackberries and low oak sprouts. Small
patches relatively bare ground.
Tettigids. All dumpt.
Syrbula. Abundant.
Orphulella. Not numerous as
adults. Juns. in fair no.
Melanoplus. Numerous.
Chortophaga. Local.
Hippiscus. Numerous. Adults & juns.

Mesothesma. Few, in bare spots of grand only.
Schistonota ancon. Imm. only.
Melanoplus littoralis. Few.
" long-winged, red legged (? nigripedius) Imm, roadside grass area with bush patches.
Melanoplus. long-winged blue legs. (? nigripes). Small series, taken roadside, not numerous.
Melanoplus short-winged. Adults few.
" punctulatus type. One female in roadside, shallow hollow, all Imm.
Melanoplus sp.? Imm. Numerous. Scudderia? fibularis. One flushed into ash tree.
Amblycorypha rot. One ♀, swept from low bush. (Brunneri type.)
Orchelimum. Imm. Few, swept.
Conocephalus fasc. Adults few.

Orth. 67 + 1536 = 1603
Orthoptera. 3 + 1683 = 1686

1939.61 Four miles S.W. of Mountain View, Stone Co., Arkansas. Elev. 1200 ft. (on basis of 400 at Memphis).
Aug. 11, 1939. (R. & R.)
Rolling country. Scrubby deciduous and red juniper woods on thin soil, with limestone rock broadly exposed. Along roadside masses of a tall yellow-flowered composite.
Stagmomantis. Juv. Swept running on ground.
Allgonicella. Final juv (?), running on ground.
Nemobiinae. Juvs. Swept.
Tettigidae. Swept from ground. ✓
Syrbula. Fem. Roadside.
Melanchroiphia. General. Adult & juvs.
Orphulia xanthoptera. One adult & one juv. in woods.
Chortophaga. Fairly common. Roadside.
Hypochlora rugosa. Common. Roadside.
Schistocerca alutacea. Juv. not identified.
Schistocerca damn. Juv.
Melanoplus punctulatus type.
2 males in woods on dead leaves.
Melanoplus scudderi type. Several adults (all fem and apparently one juv.

in woods on dead leaves and low vegetation.
Mel. mexicanus. Roadside.
Mel. hirtipes (? inspiger). Fem., roadside.
Suddenia. Adults from juniper.
Tmesiphorus fusc. Adults in low vegetation, roadside.
Trichodinus. Fem. Roadside.
Tyrtophyllus. 1♀. Swept from low vegetation in woods.
Xyletobius. Fem. Numerous.
Xylechinus. Fem. Swept.

Orth.	77	+ 1603	= 1680
Other ins.	13	+ 1686	= 1689

1939.62 Between Shirley and Clinton, Van Buren Co., Arkansas. Elev. 1200 feet (on basis of 400 feet at Memphis). Aug. 11, 1939. (R. & R.)
Open pine and oak woods on slope, with dense tangles of blackberry undergrowth, sumac and wild vetch with much long grass.
Staphylinidae. Fem. from undergrowth
Mitophyrnus. Fem. Swept.
Pyrtula - Numerous - general, both adults - fem.

1939.62 (cont.)
Amblystropidia. Few juvs. Swept in woods.
Dichromorpha. Few. Juvs.
Chortophaga. Few but not taken.
Melanoplus sp. Juv. Numerous.
Camptolcanthus dis. 2 juvs. in tall weeds along edge of woods.
Schistocera amer. Juv. Numerous.
Amblycorypha rotundi. In weeds and low bushes.
Amblycorypha uhleri. Ditto.

Arch. 27 +1680 -1707.
Atten ins. 13 +1689-1702.

1939.63 Eight miles N. of Marshall, Searcy Co., Arkansas. Elev. 1250 (1100 Memphis) feet (in town of 400 feet at Memphis). Aug. 11, 1939. (R.-R.) Open oak woods with undergrowth largely oak scrub. Short grass Spitz general.
Dissosteira juvs. Swept.
Tettigids. Few. Swept from ground.
Spharagemon wilc. Few in woods.
Melanoplus punctulatus type.
One male in tow com in woods.
Mel. short-winged species. Ad. ♂ and num. juvs. in woods.

Melanoplus cuneolus. 1 ad. ♂ in leaf cone in woods.
Anthrocomypha whiteni. Two in oak scrub.
Hapithus. Swept from oak scrub.
Oecanthus. Adult. Swept from oak scrub.

Orth.	25 + 1707 =	1732.
Other ins.	5 + 1702 =	1707.

1939.64 Five miles N. of Jasper, Newton Co., Arkansas. Elev. 1200 feet. Aug. 11, 1939.
At light at night except Neconocephalus ♂ stalked in vine tangle, and Blattids and canthophilids trapped in molasses jars.

Dry	Orth.	3 + 1732 =	1735.
	Other ins.	81 + 1707 =	1788
Alcohol.	Orth.	25 + 1735 =	1760
	Other	5 + 1788 =	1793.

Also Melchinum and Mel. differentialis similarly located,

1939.65 Five miles S. of Jasper, Newton Co., Arkansas. Elev. 2400 feet. Aug. 12, 1939
Rondside patch of low woods with adjacent border of oak forest.
Diapheromera. Juvs. Swept from tree foliage.
Tyrtaeus. Abundant. Adults + juvs.
Melchromorpha. Juvs. Swept.
Cantophaga. Juvs. Swept.
Hippiscus. Adults numerous.

1939.65 (cont.)

Melanoplus obovatipennis ? 1 ad. ♂ in mds.
" mexicanus ? 1 ♀. Impt.
" diff. 1 juv. ♂ahm, 1 ad. ♀ mm.
Nemobius. 1 juv. Impt.
Alcanthus. 1 ad. ♀. Impt from oak foliage.

Orth. 32 + 1760 = 1792
Other ins. 3 + 1793 = 1796.

1939.66 Ten miles S. of Jasper, Newton Co., Arkansas. Elev. 2500 feet.
Aug. 2, 1939. (R. + C.)
Open deciduous woods with normal sub stand undergrowth largely replaced by weeds and much dry dust and ground cover of grasses and weeds.

Diapheromera. Juv. Impt.
Tettigids. Impt. √.
Syrbula. Adults + juvs.
Melanoplus " " "
Chortophaga. Adults.
Arphia xanthoptera. One adult.
Spharagemon bolli. Juv.
Melanoplus dust-winged, 1 ♂ adult ~~Dasp~~ and nymphs in instar preceding maturity. On ground cover.
Mel. mexicanus.

Melanoplus punctatus typ. Adu & fem and Last.
Amblycorypha uhleri. Nymph last fem foliage.
Neoconocephalus. Adult in short grass.
Hapithus. Juv. Supt.
Oecanthus " "
Orth. 22 + 1792 = 1814.
Ortheuria. 8 + 1796 = 1804.

1939.67 Two miles S. of Sand Gap, Pope Co., Arkansas. Elev. 2300 feet. Aug. 12, 1939. (R. & R.)
Hill side and ridge and ravine and tendrils.
Diapheromera Juv. Supt.
Stagmomantis " "
Xiphidium. Adult on road ravine.
Pharagmatheca tibialis. In fair numbers among shrubbery.
Melanoplus Host-mingled. Juvs. in instars preceding maturity. Edge of nearby woods and in ravine.
Orchelimum. Juvs. Supt.
Oecanthus " "
Orth. 11 + 1814 = 1825.
Ortheuria. 11 + 1804 = 1815.

1939.68 Two miles S.W. of Chickasaw, Gill Co., Arkansas. Elev. 500 feet. August 12, 1939. (R.-R.)

In open mixed deciduous and pine woodlands with undergr. chiefly vines and sumac, and my little oak scrub.

Nomotettix. Several from ground.
Syrbula. Few. Adults - juvs.
Thelichomorpha. Adult seen + last.
Orphulella Adult.
Euphita xanthi. Adult seen + last. Juv. taken.
Sphenarium Wilii. Few.
Chortophaga. "
Melanoplus Short-winged. 2 ad. ♂ and juvs. in woods.
Mel. mexicanus. In woods. (Hunted high up in trees, ♀ juvs.)
Schistocera imperator. Adult seen, juvs. taken
Amblycorypha wheleri. Few in oak scrub.

With. 32 + 1825 = 1857.
Either sex. 2 + 1815 = 1817.

1939.69 Top of Magazine Mtn., Logan Co., Arkansas. Elev. 2800 feet. Aug. 12, 1939. All attracted to light at night except as here noted:

Neoconocephalus (2), Orchelimum (1), Oecanthus & Cyrtophyllus (3) stalked with

flash lamp.

Atlantucris + anthophilids, Phyllodromia, Neanobius, cockroaches and Layer [illegible] tahan in molasses trap.

The Anthophilus has a most peculiarly pronounced δ - ♀ tahan.

Hy { Wash. 19 + 1857 = 1876
Ether ins. 91 + 1817 = 1908

In alcohol. { Wash. 55 + 1876 = 1931
Ether ins. 35 + 1908 = 1943 ~~1943~~

1939. 70. Same as 1939. 69 but August 13, 1939.

On edge of oak and hickory woods and in open grassy prairie conditions on summit plateau, numerous scattered clumps of oak & cut, sumac, blackberries, etc.

Stagmomantis. Juv. Rept in open.

Oligoniella. Three in open, two running on ground, one swept (probably from ground).

Scyllina. Juvs, both adults and juvs.

Agonidella. Adults numerous in open.

Boopedon auriventris. Common in open, ♂♀ two but principally ~~taken~~ flying, usually dirt on ground.

1927.10 (cont.)

Males of Boopedon generally found a foot or so above ground in shrubbery.

Argiope sulphurea. One taken at wood edge.

Argiope xanthoptera. Two, in open. Chaetopelma Juv. taken. Adult also.

Hippiscus rugosus Adults. Juvs. few, female seen but not taken.

Selenotaenia aurea. Juvs. Sept.

Neoprosotillus pratensis. Locally numerous in shrubbery in open.

Paratylotropidia brunneri. One male. all seen, even after extensive search by both of us. In very low short grass and weeds.

Melanoplus bivittatus. Few in open.

" luridus. Adults few in open. Juvs.? Numerous.

Melanoplus mexicanus. Few.

" ponderosus type.

Locally numerous in open.

Melanoplus scudderi type. Locally numerous in open, but adults less so than juvs.

Mel. scudderi type #2. In woods only.

Campylacantha olivacea. Juvs. In open ~~woods~~ in woods. Few.

Amblycorypha rotundifolia. Few. Sept.

Amblycorypha uhleri. One tmpt.
Scudderia 2 spp. Adults two, imms.
immersus in open.
Conocephalus. 1♀ in woods about camp.

Orth. 181 + 1931 = 2112
Other ins. 5 + 1943 = 1948

1939.71 Near ~~Tate~~, Jone, Logan Co.,
Arkansas. Elev. 900 feet. Aug. 13, 1939
(R.-R.)

~~Ha~~ Slope with open deciduous
forest with normal undergrowth
of oak scrub, tall grass, etc.
Oligonicella. One tmpt from
ground.
Diaphanoptera. Imm. tmpt from
oak scrub.
Symbula. Adults seen but not taken.
Pharagmus Uhleri. Imm.
Campylacantha olivacea. Imms in
weeds near roadside.
Melanoplus luridus. 1♀ in oak
scrub.
Cyclopsilum. Sev. imms. tmpt from
forest undergrowth

Orth. 12 + 2112 = 2124
Other ins. 2 + 1948 = 1950.

1939.72 Camp 3 miles S. of Boles, Scott Co., Arkansas. Elev. 1000 feet. Aug. 13, 1939. (R. + R.).

Attracted to lights at night, to except for Diapheromera which apparently fell in us from a tree above, + Paraphlatta

Orthoptera	3	+ 2124	= 2127
Other ins.	51	+ 1950	= 2001

in general. Ameletus mohave Aug. 7

1939.73 Cedar Creek, Scott Co., Arkansas. Elev. 750-800 feet. August 14, 1939. (R.-R.)

Mixed deciduous and short-leaf pine woods on slope, chiefly pine. Undergrowth in lower part of slope largely destroyed and replaced by roadside weeds. Some of original undergrowth remained on upper part of slope examined. very few Orthoptera at all.

Stagmomantis. Juvs. Sept.
Diapheromera. " " + on blunder grass.
Tettigids abundant from ground at base of slope.
Chortophaga. Roadside.
Melanoplus punctulatus type. Locally numerous on upper part of slope, in dead leaves.

Melanoplus thut-imaged + Common — adts. + juvs. on upper part of slope & exam. in dead leaves.
Atlanticus 18 on ground, hopping on dead leaves.
Cyclopteilum. Juvs. Imp't.
With. 35 + 2127 = 2162.
Other ins. 3 + 2001 = 2004.

1939.74 Ridge between Forrester and Eden, Montgomery-Scott Co., Ark. Elev. 1450 feet. Aug. 14, 1939. (R. R.)
Thut-leaf pine woods with rock ledges on top. Undergrowth mainly woods.
Oligonicella. Ins from low pine.
Melanoplus. Two species. All juvs. Impt from pine & grass.
Orphulella. Few in grass.
Schistocerca amer. Juvs. Imp't.
Scudderia Adults. & Pine undergr.
With. 9 + 2162 = 2171.
Other ins. 2 + 2004 = 2006.

1939.75 West of Crystal Springs, Garland Co., Arkansas. Elev. 775 feet. VIII, 19, 1939
Low, thut-leaf pine woods with quite limited undergrowth.

1939. 75 (cont.)

Stagmomantis. Juv. Rept.
Tibicen. Rept from ground.
Chortophaga. Juv. on roadside.
Adult ♀ ♀.
Hippiscus. Adult. Roadside.
Melanoplus Rept-wingd. 2♂, 1♀ in woods. Additional ♀ ♀ - Rept.
Schistocerca amer. Juv. Rept.
Scudderia. Juv. Rept.

Orth. 13 + 2171 = 2184
Other ins. 7 + 2006 = 2013

1939.76 Three miles W. of Jessieville, Garland Co., Arkansas. Elev. 950 ft. Aug. 14, 1939. (R. & R.)

Hill hill, open short-leaf pine woods with well developed and undisturbed normal undergrowth of oak and pine scrub, sumac, hawthorn, etc. Almost no Orth. found.

Diapheromera. Juv. Rept from oak woods.
Xiphidium. One ♀ in bare spot.
Melanoplus. Adult. Rept from oak scrub.

Orth. 8 + 2184 = 2192
Other ins. 0 + 2013 = 2013

1939.77 Hardanelle, Pope Co., Arkansas.
Elev. 400 feet. Aug. 14, 1939. (R.-R.)
Attracted to lights at night.
Arth. 3 + 2192 = 2195
Other ins. 64 + 2013 = 2077

Rahia only Coleoptera
Syrphidae only Diptera!

1939.78 Nine miles W. of Ozark, Franklin Co., Arkansas. Elev. 860 feet. Aug. 15, 1939. (R.-R.) Rolling country.
Short grass with clumps of quite tall and coarse grass, along edge of low mixed deciduous and pine woods.
Stagmomantis. Juv. On small shrubby trees near roadside.
Oligoniella. In dead leaves on ground at edge of woods.
Diaphoromera 2 spp.? All except few grass and tall weeds.
Sigbula. Numerous - chiefly adults. Diurnal.
Hermicina picta. 3 Ped. & Juv. & Pupa. One adult & one but dest. In tall grass near wood edge.
Orphulella. Two along edge of woods.
Orphia. On ground & grassy area near wood edge. Nebulosa.
Chortophaga. Few, in grassy area.
Campylacantha. 2 Juvs. in woods.
All rare.

1939.78 (cont.)

Schistocerca americana. Juvs. general in grass + weeds.
Melanoplus bivittatus. Few adults in grassy area.
Mel. femur-clasped, lung-winged.
Juvs. All males, in grassy area.
Mel. differentialis? Pentatomids.
" short-winged. 2 ♂. Edge of woods.
Mel. sp.? Juvs. general.
Scudderia. Adults in grass.
Conocephalus. Juvs. in grass.

Orth. 65 + 2195 = 2260
Other ins. 7 + 2077 = 2084

1939.79 Three miles W. of Meeker, Lincoln Co., Oklahoma. Elev. 1200 feet. August 15, 1939. (R. & R.)
Rolling country. Work done in one of the many infrequent patches of natural prairie tall and short grass with scattered clumps of scrub oak, and much undergrowth and brush of the same. Material abundant, the selection of desirable the real problem.
Stagmomantis. Juvs. Imgst.

Diaphuromera · 2 spp. ? Common in tall grass Majority taken are adult males - females are scarce.
Syrbula. Common, roadside, less frequent in undisturbed areas.
Melanoplus bivittatus. Common, ~~two~~ adult females somewhat less numerous than males. ~~Mainly~~ Frequented tall grasses, but would take refuge, when pursued, in the short bushes, particularly the females. Species quite a free flier.
Encoptolophus. Two ♂♂ small juv. stage from low ground near edge of taller grass
Agenotettix. In wiry short grass and similar low ground near bare areas of reddish loam.
Boopedon ? One male (adult) in tall grass.
Orphulella. Infrequent in grass.
Arphia conturbata ? Found in grass. A relatively sluggish flier for the genus. ✓
Arphia sp. ? Small juv. stage from grass.
Hadrotettix. 2 ♂♂ in area of bare reddish sandy loam. ~~Not~~ Not taken. ✓

1939.79 (cont.)
Rhiostoma lineata; 1♀ from ground, taken from sand oak when it had taken refuge.
Mikenoplus diff. Common ♂ + ♀ taken. Few, mostly roadside
Mel. bivittatus. Roadside. Few.
" packardi - Fordus. Several males of diff. species (3) taken. Common, roadside.
Mel. impyon? Four females taken, no males seen. Local in tall grass.
Mel. sundeni? 1 pair - all adults seen. Among dead twigs of sand oak on ground.
Mel. sp.? Two. In grass.
Phrotalcites? 3 Two. In tall grass. Few.
Hesperotettix speciosus. 1♀ - all seen - in grass at edge of oak clump.
Hesp. pratensis. 1♀ all seen - in short grass near same spot as H. speciosus.
Scudderia furcifera? 1♂, 1♀. Flushed from grass into oak sand. Ambly corypha. 1♂ swept from tall grass.
Neoconocephalus sp. 1♀ from tall grass.

Incpt
Archelimum sp. 1 ♀, from Tall grass.
Conocph. stictus. 3 ♂, 2 ♀ ditto and from shrubby weeds.
Neoconthus sp. Imm. Incpt.
Cyclopsitalcus sp. Incpt from sand oak.
With 98 + 2260 = 2358.
Other ins. 2 + 2084 = 2086.

1939. 80 Three miles East of Hydro, Caddo Co., Oklahoma. Elev. 1700 feet. Aug. 16, 1939. (R. & R.)
Area of undisturbed white sage and tall grass, on reddish sandy loam, with dense patches of Rudbeckia. Material swarming as individuals - species abundant in consequence difficult. Stagmomantis: 1 ad. ♂ and imm. ♀♀ Incpt from Rudbeckia and tall grass. Most immature, as fins, in composites near the individual flimsy.
Litaneutria: 1 ad. ♂ & 3 ad. ♀. Incpt from tall grass and on ground.
Gryllula: Fairly numerous, adult & adults.
Microcentrum rhombifolium & M. laticauda (1)
Fairly most numerous. Chiefly adult, for latter all so. In tall grass and sage. Very fine flying.

Apsia. Few & adults and juv.
Agimotettix. Fairly numerous, on ground.
Adrolophites. One in bare ground - all fem.
Argohia. Few.
Atlipsiacris. Few.
Spharagemon cristatum. Few.
Paroxemata. Areal in tall grass.
Campylacantha. Numerous in white sage and tall grass. Largely adult.
Phrotalioides. Few. juvs. In tall grass.
Melanoplus glaucipes. Few. 1♂, 2♀ taken:
M. bivittatus. 1♂ taken. Few taken fem.
M. thatcheri. Adults. All taken males. Rept.

Hesperotettix pruinosus. Numerous in white sage and other growth of similar heights. All adults and no males taken.

M. pondrosus type (long-winged). One female - all fem. In tall grass.
M. bilineatus almost like bivittatus. Areal in grassy area, predominating species localities. Active flier.

M. fordus complex. Relatively numerous and more general than Dactylotenium and in lowlands.
Ambyrospha hirsutica. Numerous scattered in composite and grass areas.
Microcentrum. 1 in composite.
Melanoplus: Irregular from sage and tall grass.
Schistocerca. In composite - Quite a few but dif. to secure.
Acanthus. Irregular from Sarcobatus sage.

Orth. 184 + 2358 = 2542
Acrid. 18 + 2086 = 2104

1939. 81 Five miles W. & Elk City, Beckham Co., Oklahoma. Elev. 2650 feet. Aug. 16, 1939. (R.-R.)
Gently rolling country with dense clumps of tall sand bush, and between almost solidly with knee-high sand bush with some weeds and very little grass. The bare reddish sandy loam with numerous sand channels.
Mermiria maculipennis. Relatively few - Lighting on sand oak preferably.

Agonostellix ♀ Few, on ground.
♀ Porrinosa. Few. Like Impo from ground
Phanagnum cristatum. Numerous in bad areas. Shady and sustained flies.
~~Hap~~ Xanthippus corallipes. Few in low spots. Mild.
Schistocera lineata. Few. In scrub oak. Mild.
Acrotylus. Two females on ground between low oak scrub.
Neoponotellix apricaus. Numerous in low oak scrub and in woods.
Camptolaemina. Imm. Few in woods.
Melanoplus ♂ fordus-packardi complex. Numerous and general.
Amblycorypha huasteca. Imm. from oak scrub
Rehnia victoriae. 2♂ Imm. scrub oak and oak scrub. - i.e. high and low. Both quite in evidence and not at all hidden.
Pediodectes nigromarginata. 1♂, 4♀. In scrub oak and imm. from low oak scrub.
Acanthus ♀ ad. Imm. from scrub oak.

Orth. 52 + 2542 = 2594
Other ins. 14 + 2104 = 2118

1939.82 Eight miles W. of Shamrock, Wheeler Co., Texas. Elev. 2600 feet Aug. 10. (R.-R.)
Open rolling country with white sage, tall mixed and clumps of grasses along small wash in reddish sandy loam. Locality close to the eastern break up of the high plains into draws and low bluffs.
Mammira nemnes. 1♂, 1♀ adults. Taken. Other fms.
Mer. manalis. 2♂, 1♀ Taken. Both types nne in fair no. but less numerous than at 1939.80.
Apoda. Rec. Adults + juvs.
Agnostattis. Common in ground.
Aulacana Infreq. in ground.
Amphitomus Inlo infreq. 2 Taken all com. Ground.
Xanthippus. Rec. One pair Taken. Hard flin ds ground.
Dissotura longipennis. Rec, singly. One Taken.
Hadrotattis. Common.
Campylacantha. Numerous. Adults + juvs. Profusely in sands.
Hesphistattis splendens. Numerous.
" viridis. Uncommon.
Three taken. Very low in ground com.
All females.

1939.82 (cont.)
Melanoplus diff. differ. Roadside.
" regalis. A male & taken.
" flavidus type. Two, in
weeds. 1♂, 2♀ taken.
" bivittatus like. Abundant,
particularly roadside.
Mel. packardi. In fair no. 1♂, 4♀
taken.
Mel. fasciatus compl. Numerous.
Acrotylus 1♂, 1♀. On ground.
Pediodectes nigro-marginata:
1♂, 1♀. Both from narrow-leafed
yucca
Pediodectes haldemani. One
male from yucca.

Orth.	106	+ 2594	= 2700
Other ins	9	+ 2118	= 2127

1939.83 Amarillo, Potter Co., Texas.
Elev. 3700 feet. Aug. 16, 1939. (R.R.
Attracted to lights at night.

Orth.	1	+ 2700	= 2701
Other ins.	21	+ 2127	= 2148

1939. Rim & Palo Aluno Canyon, Palo Aluno, State Park, Randall Co., Texas. Elev. 3400 feet. Aug. 17, 1939. (R.-R.).

Upon plains condition to rim, with heavy cover of grama grass with scattered Prosopis trees and many narrow-leaved yuccas.

Staphylinidae. Inv. Impt.

Pseudosermylus. 3 ad. ♂ + 1 ad. ♀ + number of juv. (spec. identical?) Swept from tall grass and mesquite.

Scydmaenidae. Locally numerous. Both adults and juvs.

Neuronia nemes. Frequent. Adults + juvs.

Neur. maculipennis. Frequent. All adult. One found hiding head down bottom yucca leaf.

Hydropsychidae. Found. Numerous.

Amphitoma. Larvae and pupae.

Agapetus. Common, on ground.

Polycentropus. 1 ad. ♂ and 1 juv. On bare ground.

Orphnephilinae. Inv. At base of grass clump.

Xanthophaes. Adult ♂ taken, 1 mated Diaseiodini. Two dead - none captured. Very vigorous flyers.

Ephemerella aegualis. 1 on bare ground.

1939.84 (cont.)

Lepus sp. Ad. taken. Two shot seen.
" ? 1 juv. ♀. Ran from ground. Is it this a Phrynosoma?
Reithrodontomys crispus. Two on bare ground
among rock.
Neotoma albigula. 1 pair - all taken.
On bare ground.
Perognathus. Two, on ground.
Schizocosa. Encountered. Alive - all taken from grass clump.
Phaetusticotes. 1 juv. in high grass
woods.
Melanoplus glaucipes. Three ♂♂ taken,
all seen.
Mel. regalis. 10. - all seen
" pardalinus typ. Numerous
" scudderi - typ. One taken.
" mexicanus? Small taken.
" other spec. Few.
Cyclosternum.
Small snake, sp. Ad. ♂ - juv. Kept. Panoplosa. Numerous in tall grass. All adult.

Birds. 121 + 2701 = 2822.
Other sp. 18 + 2148 = 2166.

1939. 85 - Pop 7 Palo Alto Canyon, Palo Alto Canyon State Park, Texas. Elev. 2700 feet. Aug. 17. 1939. (R. + R.)

Canyon flow with tall grama grass, and then
many scattered prickly pear
clumps and low mahogany brush,
closely and thickly dotted and
in places almost solidly clothed with
individual trees or clumps of
mesquite and juniper.
Hyptis fruticulata. Common and
general. Adults & juvs.
Mammillaria macdougalii, male only
Fairly fine.

Opuntia. Numerous.
Echinocereus. Local on bare ground.
Neoporteria viridis. Local in a
patch of high mimicry planned
composite.
Melanoplus flavipes. Local, in fair
numbers. Often under prickly pear
shelter of mesquite in ground cover.
M. differens. One seen and taken.

Parcalites. Common. Imm.
Melopsus. 18. In juniper. All fem.
Nicrophorus. 18. Imm. from tall grass.

Orth. 45 + 2822 = 2867.
Other im. 3 + 2166 = 2171.

1939.86 Canadian River, 18 miles N. of Amarillo, Potter Co., Texas. Elev. 2850 feet. August 18, 1939. (R.-R.)
Sandhills, with heavy plant cover, few trees. Cover - narrow-leaved yucca, wintu fat (Euphorbia), ? hackberry, Cenchrus and black-eyed susan like composite. Occasional cottonwood are also present. The hackberry (?) was often in clumps but rather low mats.
Diaphromera velii. One male from yucca.
Merriccia manifica. Several from yucca and hackberry.
Opeia. Few.
Spharagemon collare. Few on bare reddish sand.
Trimerotropis pallidipennis. Few. One, all sex.
Acrotomera haydenii. One only, on reddish dry gravelly adobe.
Schistocera lineata. Several in dista, but apparently preferring yucca or hackberry.
Campylacantha. 1 ad. ♂ and few juv. ♀.
One Euphoria.
Hesperotettix speciosus. One in hackberry.
Melanoplus glaucipes. Numerous, apparently in hackberry.
Melanoplus bivittatus. One taken, a few others seen.

Melanoplus differentialis. Numerous.
" packardi type. "
" fraduo type. Not as frequent.
" Wrightii " Abundant.
" mexicanus Numerous.
Orth. 99 + 2867 = 2966.
Other ins. 6 + 2171 = 2177.

1939.87 Eight miles W. of Dumas, Moore Co., Texas. Elev. 3800 feet. Aug. 18, 1939. (R. + R.)
Weed field, thickly grown up in trumpet weed, Cenchrus, tall grass and various other weeds.
Spharagemon marmorica nymph. Common, few ♂♂.
Spharagemon collare. Common.
Melanoplus bivittatus. Few.
Melanoplus differentialis. Generally abundant.
" packardi Ditto
" mexicanus. "
" latipennis. Less numerous.
Chiefly nymphs.
Mel. regalis? Scarce.

Orth. 30 + 2966 = 2996.
Other ins. 6 + 2177 = 2183.

1939.88 Seven miles N.W. of Dalhart, Dallam Co., Texas. Elev. 4300 feet. August 18, 1939. (R.-R.)

Nearly level plain with tumbleweed and winter fat (Eurotia lanata) almost exclusively.

Sphaeractium collare. Larval in bare ground.

Rhicnoctenia longipennis. Two, one taken a string and sustained flight.

Schistodema lineata. Two. Wild. Seemed to prefer Eurotia lanata.

Campylacantha vivax. Two adults, imm. not numerous. On Eurotia lanata exclusively.

Melanoplus bowditchi type. Abundant.
" foedus " "
" packardi. "
" mexicanus "
" cyclis type? Few.

Acanthus. Adults swept from Eurotia lanata.

Orth. 58 + 2996 = 3054.
Other ins. 3 + 2183 = 2186.

1939.89 Clayton, Union Co., New Mexico.
Elevation 5100 feet. Aug. 18, 1939.
(R. & R.)

Rolling plains condition with mixed cover of Ruellia, a low rabbit weed, ~~bad~~ a yellow flowered composite & different kind, Thistle Cardueae, and clumps of grass, with a few scattered narrow-leafed yuccas. Scattered outcrops of lime encrusted lava.

Diaphanomma vilicii. In fair number in grass clumps, mainly adults.
Pseudoamnyle. Very few, in grass.
Tmetobilles. Several only - all seen - in grass.
Neomicia neomexicana. Not common.
Clypia. Few on ground.
Rhepanoptenna. One on ground: all seen
Metabrenna platteri. One on ground, - all seen.
Hadrotettix. One, on ground. } all seen.
Tropidolophus. One, on ground. }
Campylacantha. Abundant, both adults and furs. in Ruellia and other composites.
Melanoplus balcinus. Few, in grass.
" packardi. " "
" sp. "

1939.89 (cont.)

Phoetalistes. A single macroptinous ♂, all sum. Impt.

Pediodectes. 2 ♂, 1 ♀, impt from grasses and composites. Not as active as most denticollis.

Acanthus. In tumble weed.

Work. 109 + 3054 = 3163.

Letter in 10 + 2186 = 2196.

1939.90 Between Capulin and Des Moines, Union Co., New Mexico. Arrived days 7300 but check R.C. dev. of the alum two points. Collecting point essentially mean of the two. Aug. 18, 1939. (R.-R.)

Open rolling plains with short tumble weed and tall Rudbeckia-like yellow composite.

Tribolium sp. red-legged. Imm. Few. a

Eleodes longip. Few but lost. Imm.

Blapstinus haydeni (red-winged) Few but lost.

Campylacantha sinuosa. Abundant.

Melanoplus Latipinna. "

" pachandi typa "

" fordus " "

" carpulentus? Few.

" bilittatus. One

" mexicanus Few.

Aechmophorus. Few. On the ground between tussocks and on the Ruddiella-like composite.
Recurvirostra. Migrant from tussocks and
With. 78 + 3163 = 3241.
Other ins. 17 + 2196 = 2213.

1939.91 Raton, Colfax Co., New Mexico
Elev. 6500 feet. Aug. 19, 1939. (R. & C.)
In badland & hilly grass-up with tussocks and. A few spots of bare adobe.
Ageleius. A single specimen taken sweeping.
Agneiotettix. Three specimens on ground, around thin grass.
Hesperotettix spurius (? collare). One pair - all dead - on bare ground.
Hesperotettix. A few on bare ground.
Campylacantha. Abundant.
Aeoloplus. Swarming.
Phrictalistes. 3 adults (♂ + ♀) and a number of juvs. Not as abundant as the Campylacantha, Aeoloplus and small Melanoplus.
Melanoplus lakinus. Swarming.
" femur-rubrum. Abundant, with phoenicochloris well represented.
Melanoplus mexicanus. Less abundant than femur-rubrum.

1939.91 (cont.)

With. 95 + 3241 = 3336.
Without. 0 + 2213 = 2213.

1939.92 Five miles N. of Maxwell, Colfax Co., New Mexico. Elev. 6,900 feet. August 19, 1939. (P. - P.)
Short grass plains with scattered thistle and prickly pear, and many areas of bare reddish adobe.
Yersinia. One hiding in prickly pear.
Parabacillus. One in prickly pear.
Opeia. Numerous, particularly in prickly pear.
Pilibostrema. Two. only. On ground.
Cyphia pseudokiefferiana. One, all sex.
Eumorphophus. Two females, all sex.
Xanthippus. Frequent, moderately shy.
Hilarostoma Confipennis. Five, do sex - one taken. Very wild and a tireless flier.
Mastobregma levis. Few.
" insalis? Two. only.
Hirsutella. Few. Adults - two.
Hirsutenna, Frequent, more partial to bare ground.
Trimorphopis magnifica. Frequent and wild. All taken males. More partial, but not restricted to, bare

ground.
Trimerotropis latifascia. More numerous than T. magnifica. Both sexes taken. Almost exclusively on bare ground.
Trimerotropis montana. Few.
Campylacantha olivacea. One seen and taken.
Melanoplus femur-rubrum typ. Few. Patrial to prickly pear.
Melanoplus pallidus. Few.
" Eakinus Rentzi.
Hadrotettix. Few in short grass.

Orth. 76 + 3336 = 3412.
Orthoptera. 15 + 2213 = 2228.

1939. 93 Bitter Springs and Colmor, Colfax Co., New Mexico. Elev. 5900 ft. Aug. 19, 1939. (R.-R.)
Grass plains with much relatively high blue grama grass
Opeia. Nemiaua. Agnotettix. Few in ground.
Philibostroma. One adult and a few juvs.
Arphia Xanthoptera. Few.
Arphia pseudonietana. Several.
Encoptolophus. Adult & juvs.
Derotmema. Few.
Trimerotropis montana. Few.

1939.93 (cont.)

Melanoplus bivittatus. Few.
" Lakinus. Abundant, both adults - jivs.
Mel. femur-rubrum (plumbum phase). Abundant, adults - jivs.
Mel. packardi type. Few.
~~" Coptotettix type. Few.~~ Det.
Campylacantha. Numerous - adults and jivs.

Orth. 60 + 3412 = 3472.
Certain ins. 11 + 2228 = 2239.

1939.94 Five miles north of Las Vegas, San Miguel Co., New Mexico. Elev. 6500 feet. Aug. 19, 1939. (R.R.)
Grass plains with many stand of low yellow-flowered Stiche, composite and clumps of tall bunch grass.
Paratettix. Numerous in bunch grass.
Agenetettix. Few, on ground.
Aphia pseudonitana. Sun but Lost.
Neotmema. Few.
Campylacantha. Abundant.
Melanoplus packardi type. Few
" femur-rubrum. Few.
" mexicanus. Few.

Acanthus. Common in yellow-flowered Composite.

Arth. 57 + 3472 = 3529
Other sp. 6 + 2239 = 2245.

1939. 95 Chapelle (or Bernal), San Miguel Co., New Mexico. Elev. 6150 feet. Aug. 19, 1939. (R. - R.)

Park-like juniper and pinyon stand with short grass and low rabbit weed, cholla and a few prickly pear, as well as low oak shrub clumps. Surface with many large reddish and grey-white rock fragments.

Fragmentaria linearia. Juv. Beaten from pinyon.

Syrbula fuscovittata. 1 ♂ only seen + taken, taken inland.

Opeia. Seen but not taken.

Conocephalus. Few, on ground.

Orchesella. Moderately frequent on ground.

Metrioptera platte. One, on ground.

" sp.? Juvs. A number, on ground.

Melanoplus cinereus type. Two females seen and taken, one in cholla; the other on dead juniper branches on the ground.

1939.95 (cont.)

Melanoplus arizonae-like type. (Large rajah species.) Two females seen and taken, all red, although long march was made for male. One of these stunned was on a rock surface, the other under dead twigs on ground.

With. 16 + 3527 = 3553

Others ins. 3 + 2245 = 2248

1939.96 Glorieta, Santa Fé Co., New Mexico. Elev. 8200 feet. Aug. 20, 1939. (R.-R.)

Frost of juniper, pinyon and a few pin.

Captured in molasses bait traps. At least 3 species of Centrophilus, both sexes of each. (Preserved in alcohol.)

With. 20 + 3507 = 3527

Others ins. 30 + 2248 = 2278

1939.97 Near side of Glorieta Pass, Santa Fé County, New Mexico. Elev. 6900-7000 feet. Aug. 20, 1939. (R.-R.)

Mtn. slope with large areas of bare rock, particularly on shoulders, soil reddish. Cover made up of pinyon, juniper and occasional oak, with scattered undergrowth of oak and ~~Yucca~~ Spanish patches of low grass. Yucca. One running on ground in dead pine needles.

Psoloessa. juv. Impt from ground.
Trimerotropis cyaneipennis. Une taken and two others seen in bare rock areas.
Trim. cincta. One taken among rocks.
Opeia - Impt from oak scrub foliage.

Orth. 15 + 3575 = 3590
~~Hem~~. Other ins. 4 + 2278 = 2282

1939.98 Canyoncito, Santa Fé Co., New Mexico. Elev. 6,700 feet. VIII, 20
Sage flat along wash, with small spots of yellow-flowered composites. Almost no Orthoptera.
Psoloessa. One in ground.
Opeia. Impt from sage.

Orth. 3 + 3590 = 3593
Other ins. 8 + 2282 = 2290

1939.99 Six miles south of Galisteo, Santa Fé Co., New Mexico. Elev. ~~6300~~ feet. Aug. 20, 1939. (R. + R.)
Rolling short-grass plains, very heavily grazed, with scattered cholla. Very little Orthoptera.
Opeia. Very few.
Hesperotettix. Small.

1939.99 (cont.)

Podocoa. Few.
Philibostroma. Juv. Numerous.
Xanthippus. 3 dem and all taken opportunity hugging the ground on account of windy wind!
Merotroma. Few.
Metobrugma kennia. 1 pair only.
" sp.? Juv. Numerous.
Brachyopsia. Wind juv. on ground.
Mulandopius fumus-rubrum? 1 ♀ taken, two dem.

Elaphidia taken from shelter.
Orth. 30 + 3023 = 3053
other ins. 7 + 2290 = 2297

1939.100 Moriarty, Torrance Co., New Mexico. Elev. 6200 feet. Aug. 20, 1939. (R. & R.)
Short-grass plains with groups of two yellow-flowered composites (rabbit weed). Almost no Philibostroma.
Philibostroma. Juv. Numerous.
Metobrugma. Juv. Few.
Orth. 7 + 3623 = 3630
Other ins. 11 + 2297 = 2308

1939.101 Two miles east of Barton, Santa Fe Co., New Mexico. Elev. 6400 6700 feet. Aug. 20, 1939. (R. & R.)

Hill slope with park-like cover of juniper and pinyon, ground cover grama and other grasses, brown dry, and with numerous patches of low yellow-flowered composites and occasionally cholla and prickly pear.

Yucca. One sprout from ground.

Parastrephia. 1 number, representing both species, swept from grass.

Ericameria nauseosa. Infrequent. Autumn.

Opuntia. Dry.

Thelesperma platteri. Numerous.

Trimerotropis montana. Dry.

Xanthocephalum wrightii. Only one seen, taken from composite.

Melanoplus dawsoni type. Local, number taken - one from composite, others from other low flowering plants and a few from dead twigs of juniper and pinyon. Very active.

Camnula pellucida. 1 ♀, taken from under dead wood.

Orth. 49 + 3630 = 3679.

Other ins. 36 + 2308 = 2344.

1939.102 Sandoval, Sandoval Co., New Mex. Elev. 5000 feet. Aug. 21, 1939. (R. + R.).
Drain along R.R. from high mesa and grass, and pasture with salt grass, yellow-flowered composite and scattered spots of bare adobe.
Tettigidea. Wide range in drain.
Hesperotettix. Few in both situations.
Encoptolophus. In pasture, particularly near salt grass.
Spharagemon collare. 1 ad. ♂ + 2 ♀♀ nymphs. On bare areas in pasture.
Schistocerca lineata. Abundant in tall vegetation in drain.
Melanoplus femur-rubrum. In both situations.
Mel. luridus. Few in both environments.
" bivittatus. Abundant in drain. Few in pasture.
Phoetaliotes. One female taken in drain.
Conocephalus strictus. In drain only, not common.
Oecanthus. Swept in drain.

Both.	58	+ 3679	= 3737.
Both nin.	27	+ 2344	= 2371.

1939.103 Santa Ana, Sandoval Co., New Mexico. Elev. ~~5300~~ 5200 feet. Aug. 21, 1939. (R. + R.)
Open rolling bench land with scattered juniper and grass

corn largely in soft, sage-like plant and yellow-flowered composite, with some bunch grass. Much ground completely bare.

Eutamentria, 14 jivs. Running on ground.

Pseudocaenyle. 28 swept from sage-like plant.

Cordillacris. 1 from ground.

Trimerotropis maculata. 10 and 1 nymph. jivs. on ground.

Trimerotropis texana. Numerous in one limited area on bare ground.

Trimerotropis red-legged. Single one seen and taken. On bare ground.

Melanoplus sage species. One female from sage-like plant.

Melanoplus femur-rubrum. One

Orth. 21 + 3737 = 3758.

Others 18 + 2371 = 2389.

1939. 104 Four miles Northwest of San Ysidro, Sandoval Co., New Mexico. Elev. ~~5750~~ 5750 feet. Aug. 21, 1939. (R.-R.)

Edge of marsh with Sarcobatus, Atriplex and a tall spidery purplish flowered plant.

1939.104 (cont.)
No Eriophyllum fahum.
Orth. 0 + 3758 = 3758.
Other inv. 10 + 2389 = 2399.

1939.105 Fifteen miles northeast of San Ysidro, Sandoval Co., New Mex. Elev. ~~3800~~ 3200 feet. Aug. 21, 1939. (R.-R.)
Rock-covered mesa with tall bunch grass and rabbit-brush composite.
Amphitornix. One on ground.
Asphinx pseudomitana. One on ground.
Paropsimala. Numerous in tall bunch grass.
Hesperotettix. Two, all stem, in rabbit-brush.
Orth. 13 + 3758 = 3771.
Other inv. 27 + 2399 = 2426.

1939.106. Five miles north of La Ventana, Sandoval Co., New Mex. Elev. ~~3200~~ 3200 feet. Aug. 21, 1939. (R.-R.)
Sage-brush slope with much juniper. Trimerotropis gracilis only Orthop. fun. One - on ground among sage.
Orth. 1 + 3771 = 3772.
Other inv. 14 + 2426 = 2440.

1939.107 Six miles north of Cuba, Sandoval Co., New Mex. Elev. ~~3200~~ 3200 feet. Aug. 21, 1939. (R.-R.)

Upon yellow pine forest on one side, sage brush on other.
Trimerotropis cincta. One - all seen
Circotettix rabula. About ten seen,
three taken. Individuals as erratic
flyers as usual for species.
Orth. 4 + 3772 = 3776.
Other ins. 1 + 2440 = 2441.

1939. 108 Three miles west of El Huerfano
Peak, San Juan Co., New Mexico.
Elev. approx. 6000 feet. Aug. 21, 1939. (R.-R.)
All attracted by light of camp at
night, including 18 Acrinings,
except pinacate beetles, which were
found about camp in late afternoon.
~~Only~~ Orth. 1 + 3776 = 3777
Other ins. 44 + 2441 = 2485

1939. 109 Edge of bench, about San Juan River
Bloomfield, San Juan Co., New
Mexico. Elev. 6200 feet. Aug. 22, 1939.
(R.-R.).
Slopes of sandy bad-land slopes where
bench sd. of San Juan River breaks
down. No Orthoptera taken. One
Trimerotropis bilobata jumped
but lost.
Orth. 0 + 3776 = 3776
Other ins. 3 + 2441 = 2444

1939. 110 Near Bunnetts Peak, between Shiprock and Navcomb, San Juan County, New Mexico. Elev. 5600 feet. Aug. 22, 1939. (R.-R.).
Adobe roadside with Sacrobatus and Atriplex chiefly.
Cnidillaria sp. One in bare ground, all ads.
Metabrevma ferruginea. Locally numerous in bare ground.
Trimerotropis minutata. One in bare adobe, all ads.
Aeoloplus sp. One ♂ from Sarcobatus, further careful search failed to reveal others.
Orthops. 10 + 3776 = 3786.
Other ins. 0 + 2485 = 2485

1939. 111 Between Sheep Spring and Waterflat, San Juan Co., New Mexico. Elev. 6250 feet. Aug. 22, 1939. (R.-R.)
In area of much grass, tumble weed and high brown-eyed susan type composite in winter area, and in adjacent near bare adobe.
Dissosteira carolina. Numerous.
Trimerotropis pallidipennis. Num. in adobe.
Melanoplus femur-rubrum. In the more lush vegetation.
Mel. packardi Scudd. Males only active.

Melampodium foedum typ. Less numerous in same situation.
Melampodium linifolium. Abundant in ditto.
Paropsoala pallida? One in bunch grass, no more seen.
Ceanothus. Impt form bunch grass.
Actis 22 + 3786 = 3808.
Other ins 12 + 2485 = 2497.

1939. 112 Two miles northeast of Nutrioso, Apache Co., Arizona. Elev. 7790 feet.
(R. & R.) VIII, 23, 1939
Short grass plains with numerous clumps of bunch grass and some timber land.
Gaillardia. Few, on bare ground.
Paropsoala. One in short grass.
Trimorphopis viscidula. Few, on ground.
" red-leaved. Annual, ditto.
Actis 5 + 3808 = 3813.
Other ins. 1 + 2497 = 2498.

1939. 113 Six miles south of Springerville, Apache Co., Arizona. Elev. 7460 feet.
Aug. 24, 1939. (R. & R.)
Flat with spaced rabbit and annual species, one in yellow flower, bordered by juniper and pinyon in park-like pine forest.

1939.113 (cont.).

Flat surrounded by lava rimrock.
Yersinia running on ground.
Agenerotettix stunt-winged. Very few on ground.
Cordillacris. Few on ground.
Mestobregma. Juv. Numerous on ground.
Trimerotropis montrida type. Local on bare ground. Not numerous.
Trimerotropis red-legged, clear banded tegmina. One taken, all recognized.
Melanoplus viridus. 1 ♂ on ground, all seen.
Melanoplus lakinus-like. Two females seen on ground - not taken.

Orth. 14 + 3813 = 3827
Other ins. 8 + 2498 = 2503

1939.114 Nutrioso, Apache Co., Arizona. Elev. 7575 feet. Aug. 24, 1939. (R. & R.)
Stunt-grass and rabbit mud slope below pinyon and juniper forest.
Agenerotettix stunt-winged. Very few on bare ground.
Mestobregma kiowa type. Local, on ground.
Trimerotropis montrida. Numerous on bare ground.
Arcyptera: Stunt.

Orth. 28 + 3827 = 3855
Other ins. 178 + 2503 = 2681

1939. 115 Six miles east of Alpine, Apache Co., Arizona. Elev. 7,900 feet. Aug. 4, 1939. (R.-R.).

Open mtl pine forest, with ground cov. of dead needles and low scattered herbaceous plants. Much dead timber, both logs and trees, as well as bark, scattered about.

Yersinia. Une running on ground cov. of pine needles.

Trimenotropis viridulata. Une, along road.

" alliciens? Numerous, on areas of bare ground.

Hirsutella carolina. Une on forest floor near road.

Melanoplus femur-rubrum type. Locally numerous, chiefly on dead pine needles. Active and jumping fair distances.

Mel. viridipes jmp. Scarce and very local, also on ground cov. of pine needles. Very active, males particularly.

Ceuthophilus. Two, under bark of dead pine.

Udeopsylla sp. Locally numerous under dead wood and rarely under bark fragments. The wood (medium sized chunks of) formed as a cover was always somewhat moist, never punky or very dry. When exposed they were sometimes grouped, again singly. Those

1939. 1N (cont.)

found singly usually had a small chamber in burro, usually lined with bark or wood fragments, in which they seemed to seek protection when the traps coming was lifted. While some remained quiescent when removed, others ran to three rat holes and endeavored to find refuge beneath any grass or weeds. When in groups, of as many as four individuals, the sexes seemed to be equally represented. When handled, if given an opportunity, they would bite severely.

Arth. 62 + 3855 = 3917 (Material partly in alcohol)
Other ins. 20 + 2681 = 2701 (Tentatively)

1939. 116. Low eastern slope of San Francisco Mts., near Stevens, Catron Co., New Mexico. Elev. 6300 feet. Aug. 24, 1939. (R. & R.)

Open hill pine forest with checker-barked juniper and scattered oak trees. Ground flora largely consisting of dry pine needles.

No Orthoptera except red-legged Trimerotropis, which was local and few in numbers.

Arth. 4 + 3917 = 3921.
Other ins. 1 + 2701 = 2702.

1939. 117 Spurgeon Mesa, 3 miles north of Alma, Catron Co., New Mexico. Elev. +950 feet. Aug. 24, 1939. (R.-R.)
Com largely rabbit-mud, with acacia, cholla and prickly-pear, while the scattered great trees are juniper and occasional pinyon in a park-like disposition.
No birds seen except 2 Tiaris, pallidipunctata, which were collected. The species was on the ground

birds.	3	+ 3921	=	3924.
Other inv.	1	+ 2702	=	2703.

1939. 118 Five miles south of Pleasanton, Catron Co., New Mexico. Elev. 4475 feet. Aug. 24, 1939. (R.-R.)
Short-grass slopes with scattered rabbit mud, much finely broken stone pavement and areas of bare adobe.
Gramineae. Numerous on ground.
Chitanactis Jun. only. Fragment on ground.
Ondillaeris. Two on bare spots.
Polioxoa dilicatula. Fragment. ~~22~~ 44 only present. ~~Number~~
Aliauda. Local in normally preferred situations, i.e. on finely broken stone shingle pavement.
Tiaris pallidipunctata. ~~Widespread~~
Abundant, roadside - all seen.

1939.118 (cont.)
Amphitrimus 1 juv.
Immerstrypis red-legged. Qua - all seen on bare ground
Hadrotettix. Qua on ground. All seen.
Heromenia Catalinae. Common, some juvs. On bare ground, in at least the relative bare spots. Scudderia. 1♀. On ground
Melanoplus flabellifer type? Rare.
Hlactylotarsus. Infrequent. 1♂, 1♀, taken separately, qua all seen.
With 451 + 3924 = 3969.
Other inv. 1 + 2703 = 2704.

1939.119 Deming, Luna Co., New Mexico. Elev. 4325 feet. Aug. 25, 1939. (R. & R.)
Attracted to light at night.
With. 2 + 3969 = 3971.
Other inv. 17 + 2704 = 2721.

1939.120 Five miles west of Akela, Luna Co., New Mexico. Elev. 4600 feet. Aug. 25, 1939. (R. & R.)
Mixed Chihuahuan type desert vegetation, with tall pampas-like bunch grass, acacia, Atriplex (shad-scale), a few Koeberlinias (all thorn), short grass and some tumble weed, with bare areas between.
Litaneutica Stimsoni. 1 ♂ ♀ from bunch grass.
Paratmetis. Numerous, ♂ ♀ from bunch grass.

Paroponala vigata. In fair numbers in brush grass. Adults + juvs.
Herstmanns Cat. Un pmnd. Few.
Cardoplus sp. Few. From Atriplex.
Melanoplus aridus type. Infrequent.
From Atriplex and brush grass.
Melanoplus sp? Juvs. Inspt in fair numbers.

Orth. 34 + 3971 = 4005

Other ins. 8 + 2721 = 2729.

1939.121 San Augustine Pass, Organ Mts., Dona Ana Co., New Mexico.
Elev. 5654 feet. Aug. 25, 1939. (R.+R.)
Mountain desert slopes of short grass and shingle of small stone, with bare adobe in the spots, numerous low bushes of Fourwing and rigid thin oak, acacia and other shrubs.

Hagnomantis lindata. 1 juv. beaten from thin oak.
Litaneutica. Running on ground.
Grasina. Juvs. Running on ground.
Phasmid ?. Juv. Beaten from thin oak.
Syrbula fuscicittata. One female, taken from thin oak.
Cokdillacris. Juvs. Adult one instar.
Trimerotropis ?juvs. (juvs.) on ground.
Paliburatima. Juvs. Two on ground.
Dolerosoma Fiskana. Imag on ground.

1939.121 (cont.)
Tumerotopis virulata. A few.
" red-legged. Moderately
numerous on ground.
Ashmita. Several adults and numerous juvs. on ground.
Cibolacris viridus. Few and local on ground, particularly the shingle pavement.
Hellanda rufa. Very few in drier
stone shingle.
Melanoplus viridus type. 1 ♂ on shingle
ground.
Melanoplus sp. Juvs. Numerous.
Cyclopitlum sp. 1 ♂ taken from
shingle.
Orth. 48 + 400♂ = 400♂
Others 7 + 29 = 36

1939.122. Extreme condition of White Sands, White Sands National Monument, Otero Co., New Mexico. Elev. 3,900 feet. Aug. 25, 1939. (R. + R.)
In the center of the sands, about miles in from monument entrance, where almost bare gypsum, in a few small areas between the dunes could be found a scant plant cover of clumps of bunch grass, ephydra and little else. Here this material was collected.

Pseudoscirpus ♂ - ♀. All in bunch grass (mixed) 5 ♂ : 2 ♀ taken.
Panopsmala Two in bunch grass - 3 (♂ - ♀) ♯ taken.
No other Orthoptera seen in this extreme condition.

Orth. 11 + 4053 = 4064.
Other ins. 28 + 2736 = 2764.

1939.123 White Sands National Monument, Otero Co., New Mexico. Elev. ~~3900~~ 4000 feet.
Aug. 25, 1939. (R. + R.)
A condition less extreme than 1939.122. The area of flat between the dunes was larger, and with a heavier, yet sparse, plant cover, composed of bunch grass, ephydra and a number of other woody shrubs and one low growing annuals. The soil at this locality was less definitely gypseous than at 1939.122, and particles of the surface were ~~intermixed~~ adobe, but mixed with gypsum sand.
Litaneutria. Inv. (in 1939 Rio rock!
Yucca. Definitely not host.
Pseudoscirpus. On bunch grass, some males, but no females, Taken. In usual cases two males were taken in a single set of swaps.

1939. 123 (cont.)

Cnidillanis. Very scarce. One male taken, one other seen. On ground. very active. Dipodomys. One ~~from~~ sliding in tuft of brush grass. - all seen.

Tumentipes pallidipes. Four seen, one taken.

Paroponmala. Few in brush grass.

Anthaca. In low heather-like plants. Two males and 1 immat. ♀ seen & taken.

Orth. 18 + 4064 = 4082

Other ins. 8 + 2764 = 2772

1939. 124 Alamogordo, Otero Co., New Mex. Elev. 4300 feet. Aug. 25. 1939. (R. & R.). Attracted to light at night.

Orth. 0 + 4082 = 4082

Other ins. 16 + 2772 = 2788.

1939. 125. Five miles south of Tularosa, Otero Co., New Mex. Elev. 4400 feet. Aug. 26, 1939. (R. & R.)

On creosote bush (Covillea) and black brush (Flourensia) flat, with low & scattered composites and a few mesquite, near drainage ~~land~~ replanted by Navaho and tall stands of annual species & rabbit weed.

Litaneutria. Few. On rabbit weed.

Rhabdomantites. A number of juvs. in various stages taken from Covillea.

No adults seen.

Parabacillus. One impt from rabbit
mud.
Bostellix. Numerous in creosote bush
(Covillea), with adults and juvs. ½ in
various instars.
Goniatrow. 1♂, 1♀ taken, one other ♂
and host, from black brush. Both
specimens taken one on twigs of the
bush and not on terminal foliage.
Eibolacris. One on stone shingle.
Cyclopsilum. Adults ♂ & ♀ with eggs & impt
from both rabbit mud and creosote
bush.
Acrostichus. Juvs. only. Impt from
rabbit mud

Creosote bush.	48	+ 4082 =	4130.
Other juvs.	64	+ 2788 =	2852.

Mescalero Research

1939. 126 Two miles down Mescalero, Otero Co., New Mexico. Elev. ~~12~~ 14 00 feet. Aug. 26, 1939. (R.-R.)

Tall grasses and weeds in valley opening along the Rio Tularosa, in bordering juniper, pinyon and oak forest. Within the edge of the trees is much low shin oak and areas of bare ground, as well as some sumpline mixed with dead pine needles.

1939.126 (cont.)

Yuccinia. Running in dead pine needles on ground, and in a clump of short grass.

Parabasidium. Inopt from trunk grass on ends.

Aecidium. From nearly bare ground under trees. Too thick.

Agaricotettix. Local, on ground.

Dissoteira carolina. Adult seen, one juv. taken, in ends.

Acrotylus platteri. Few and local.

Trimerotropis cincta. In ends. Few.

" cyaneipennis type. Among trees in ends. Few.

Sphagemon inornatum. At edge of ends. A single specimen seen and taken.

Brachystola. Several juvs. in tall grass in open.

Melanoplus aridus type. Abundant and general, but in ends only on thin oak and other ground cover.

Melanoplus salidus type. In grass and in open opp to among trees - locally common.

Melanoplus mexicanus. In roadside grasses.

Scudderia. 1 ♂ flushed into tent oak.

Neoconocephalus. Few. Inopt.

Arth. 85 + 4130 = 4215.
Lethus inc. 27 + 2852 = 2879.

1939.12, Rio Ruidoso, abv. mouth of Ruidoso, Mescalero Reservation, Otero Co., New Mexico. Elev. 6300 feet. Aug. 26, 1939. (R.-R.)
In glades between and under shade of tall douglas fir and spruce, with a few pines (not bull pine, known), undergrowth, where present, mixed weeds, oak scrub and annual plants.
Chyzochraon abdominis. ♂ 5, from weeds.
Melanoplus calidus type. Rather numerous on ground and in low cover & tame. Hard to capture, jumping freely and far.
Melanoplus distinct sp.? Juvs. only. Few in weeds.
Centhophilus sp. From under bark on (1) dead pine and (1) dead douglas fir.
Arth. 32 + 4215 = 4247.
Lethus inc. 19 + 2879 = 2898.

1939.128 Picacho, Lincoln Co., New Mexico. Elev. 5350 feet. Aug. 26, 1939. (R.-R.)
In valley of the Rio Hondo, which is

1939.128 (cont.)
largely cultivated to the foot of the
bordering hill slopes. Work was
done on a circumscribed flat of
virtually undisturbed native character.
Adder and many birds with com-
chiefly rabbit and of a number of
species, Cenchrus and thistle. Termite
were present along roadside, but
did not invade the undisturbed area.
Systrula fuscocinctata. One clearly
seen and shot.
Halictus. One just taken on ground, all
seen.
Agapostemon. One taken on ground.
Bombus sp. prob. A few seen
and taken, on ground.
Megachile. 1 ♀ taken on ground,
one taken seen.
Triungulinus pallidipes, ground.
Camptolaemaitha. Rare, chiefly in
wide bush vegetation. Chiefly immature.
Halictus viridis-type. Rare.
Impossible from rabbit mold.
Halictus chloro-virens. Rare,
same habitat as Camptolaemaitha.
Melamplus Cubitus. Common,
shot.
Melamplus bentonus type. One female
shot.

Rhactalitis. Two juv. inspt from more lush vegetation.
Arth 356 + 4247 = 4282.
Other inv. 22 + 2898 = 2920.

1939.129 Roswell, Chaves Co., New Mex.
Elev. 3560 feet. Aug. 26, 1939. (R. - R.)
Attracted to light at night.
Arth. 0 + 4282 = 4282.
Other inv. 25 + 2920 = 2945.

1939. 130 Ten miles east of Roswell, Chaves Co., New Mexico. Elev. 3300 ft
Aug. 27, 1939. (R. - R.)
Eastern edge of Pecos Valley bottom land at eastern index of first lift of Staked Plains. Ground alkali impregnated with tare dhaw, tall grass, salt flats and heavy mats of Salicornia.
Arth Orthoptera:
Orphulella. Inf pregnant in salt grass.
Trimerotropis pallid. Found on bare ground. Relatively pale.
Eritettix. 1 juv. Inspt.
Arth 8 + 4282 = 4290
Other inv. 21 + 2945 = 2966.

1939. 131 Staked Plains, Twenty-one miles east of Roswell, Chaves Co., New Mexico Elev. 3650 feet. Aug. 27, 1939.

1939.131 (cont.)
(R.-R.).

Gently rolling plains with cover of tall bunch grass, occasional narrow-leafed yucca and much other low growing cover, chiefly weeds, but only little rabbit brush.

Pseudosemyle. Males not uncommon. No females. All sept.

Alpicia. One female sept.

Cnidiaeris. One, sept from grass.

Tropidolaphus. Two juvs. sept from ground at the same spot.

Trimerotropis texana. One - all dead on ground.

Trimerotropis maculata. Small, but not numerous. Some quite pale.

Schistocerca lineata. A single individual and taken. Free flying.

Melanoplus long-winged. One male in short grass.

Paroxya clavata. Infrequent in grass.

Orthacris. One in low, flowering plant.

Acanthacris. Juvs. Sept.

Orth. 27 + 4290 = 4317.

Other ins. 18 + 2966 = 2984.

Naked Plains,

1939.132, Eight miles east of Caprock Chaves Co., New Mexico Elev. 4060 feet. Aug. 27, 1939. (R.-R.)

Rolling sand dunes with numerous low-atto and cane clumps almost entirely low and tough shin-oak, scattered narrow-leaved yucca, and rarely prickly pear.

Haplomastix limitata. One male swept from shin oak. Also 1 fem.

Perdicillus ♂ ♀ swept from atto. Sole ♀ taken was entirely rose pink in life.

Schistonca lineata. Common. On shin oak and yucca, usually lighting on upper part of latter or diving into yucca. Relatively wild.

Melanoplus texanus. Abundant on shin oak and also in yucca. Less active than glaucipes.

Paropsmala. ♂ ♀ in shin oak.

Ambycorypha huasteca. One ♀ swept from shin oak.

Orth. 73 + 4317 = 4390.
Orthn ins. 28 + 2984 = 3012.

1939.133 Eight miles east of Tatum, Lea Co., New Mexico. Elev. 3800 feet. August 27, 1939. (R.-R.)

Short grass plains with scattered thistle and clumps of tall grasses and very few rabbit weed. Orthoptera very numerous.

1939.133 (cont.)
Phlibostroma. a single adult ♂, on ground.
Elpia. A single specimen.
Hisseteina limipes. A few. Hoplomastrigma kinna. Few.
Nadrotoltix. One.
Trimastigis pallidipes. Few.
Orth. 10 + 4390 = 4400.
Other ins 5 + 3012 = 3017.

1939.134 Three miles east of Plains, Yoakum Co., Texas. Elev. 3475 feet. Aug. 27, 1939. (R.-R.)
Very gully rolling high plains, covered chiefly grama grass with small clumps of mesquite and larger and more numerous areas of shin oak, with some narrow-leaved yucca.
Parabacillus. Dead nymph.
Pseudosemiyle. ♂ & ♀ from tall grass and oak scrub. Three ♀ taken seemed admirably adapted in surface structure and color to be protected when among the dry stems of oak scrub. Two of the females were taken directly from the tops of oak scrub, close to the ants, and appeared on the plant.
Syrbula fraconiata. Few. Adults & nymphs.

Mermiria neomexicana. Few, all adults.
" mac. maculipennis. ditto.
Both flushing fair distances and
alighting on grass or in bush.
Elpeia. Few.
Drepanoptera. Rather numerous.
Agenotettix. General, but few. Clinging.
Phlibostroma. Adults - juvs. in fragments
Cn ground. Adult from bait last.
~~Hippiscus~~ Leprus phalei? Few. ~~Few~~ One captured.
Mer. ~~Do others too.~~
Melissotettix lengipennis. Few.
Opharagenus cristatum - One - all fem.
Hadrotettix. Few.
Mestobregma kiowa. Few.
" platei. One Fatum - all fem.
Hesperotettix viridis-typ. Local, in thin
oak.
Hesperotettix short-winged. Few in thin
oak.
Campylacantha - Juvs. only taken.
Melanoplus glaucipes? Rather numerous
about thin oak.
Melanoplus bowditchi typ. General
usually on ground, many.
Dactylotum. One taken on ground.
All fem.
Arctiana. One from thin oak.
Cyclopteleum. Swept.

1939. 134 (cont.)
Clemathus. Impt.
Arth. 8 + 4400 = 4484.
Other ins. 25 + 3017 = 3042.

1939. 135 Two miles south of Cone, Crosby Co., Texas. Elev. 2850 feet. Aug. 28, 1939. (R. + R.)
Small area of unplowed sod, but trampled by stock. Much tall grass, a grayish green stout muddy plant, and weeds ~~and~~ in a roadside drain and damp area in field.
Syrbula. Genus.
Dissosteira longipennis. Numerous, chiefly roadside.
Sphaerogonum aequale. One - roadside
Melanoplus femur-rubrum. Numerous in field. Glyptocoleus tibialis!
Mel. packardi. Few, in field.
Campylacantha. In roadside drain and in field, preferring greenish grass weed, which, hmmm, is not Euphorbia.
Clemathus. Adults + imm. Impt.
Arth. 18 + 4484 = 4502
Other ins. 39 + 3042 = 3081

1939. 136 Road crossing of White River, eight miles north of Cone, Floyd Co., Texas. Elev. 2675 feet. Aug. 28, 1939. (R. + R.)

bush bottom with dense stands of tall, thicky yellow flowered composite, area of short grass and scattered mesquite bushes.

Litaneutria. 1 ♂ trapt.

Stagmomantis. 1 juv. trapt.

Diapheromera velicii. One ♀ trapt from composites.

Syrbula admirabilis. Few. Adults and juvs.

Xiphidium mac. maculipennis. Common. Adults and juvs. General.

Opeia. Numerous in short grass.

Scopidon. Few. Two ♂♂ and 1 juv. Taken in grass.

Agenecotettix. Juvenals, on ground.

Orchelimum. Few, in short grass.

Paliburstroma. Scarce. One taken in short grass.

Hippiscus. Few. In short grass.

Hesperotettix speciosus. Larval in tall weeds.

Campylacantha. Few. Adults and juvs. In tall weeds.

Phrynotettix. Common, chiefly juvs. in weeds and tall grass.

Melanoplus differentialis. Adults and juvs. In tall weeds.

Melanoplus packardi type. Adults in tall weeds.

Mel. femur-rubrum. Few, in weeds.

1939.130 (cont.)

~~Melanoplus bivittatus mixed Hem.~~

Xiphidium. Juv. in tall weeds.

Conocephalus. Females in tall grass.

Orchelimum. 1♂ in tall weeds.

Oecanthus. Adults + juvs. rept.

Orth. 113 + 4502 = 4615.

Other ins. 30 + 3081 = 3110.

1939. 137. Twelve miles west of Matador, Motley Co., Texas. Elev. 2700 feet. Aug. 28, 1939. (R. & R.)
Brush & plains bunch with typical short grass condition, scattering low mesquite and numerous narrow-leaved yucca.

Stagmomantis p. Juvs. Sept.
Pseudoacanthyle Locally numerous.
♂ & ♀. Sept.
Diapheromera ♂ & juvs. Latter in mesquite.
Paratettix. Local. Sept.
Tylotula fuscocruciata. Few, adults & juvs. General.
Mermiria neomexicana. Few.
" mac. maculipennis Few. One on dead flower stalk of yucca.
Opeia. Abundant, adults & juvs. Ubiquitous.
Amphitornus. Few. Local. On ground.
Mesochlora. Juvs only. Rather general.
Phlibostroma. Adult & juvs. Local.
Agenetettix. Common. On ground.
Hadrotettix. Few.
Spharagemon aequale. One & two adults seen.
Mestobregma kiowa typ. Few. Local.
Campylacantha. Juvs only. Local.
Neopolotettix viridis typ. Local.
Melanoplus packardi. Few.

Melanoplus short-winged. 1♂. Ab. grassland.
Arethaea. 1♀ in grass.
Rehnia. Abu. rupt. from grass.
Pediodectes. Abu. in mesquite about
waist high.
Cyclopticlum. Numerous. Incpt.
Orth. - 98 + 4615 = 4713
Other ins. 19 + 3110 = 3129

1939.138 Fourteen miles east of Matador, Motley Co., Texas. Elev. 1550 feet. Aug. 24, 1939. (R.-R.)
Broad winding draw in reddish soil, grassland and mesquite plain, this draw dipping down into draw, the very bottom of which was deeply eroded but choked with Cenchrus. Grassland surface between mesquite bare in with short bunch, curly sun-dried grass. Roadside drain with sun-cured curly grass, rabbit weed, Koeberlinia like thorn, tumble weed and a number of other plants and shrubs.
Stagmomantis carolina. 2 ad. ♀ taken on fine mesquite, the other nupt.
Dichopetala sp. A number of juvs. in tall grass in bottom of draw, where much Cenchrus was present. Also found in Koeberlinia like plant in roadside drain.

1939.138 (cont.)

Sybrula admirabilis. Roadside.

Mermiria mac. manuliquinis. Abundant. Jeneral.

Mermiria neomexicana. Few. Adults and juvs. In loose rotten J drawn.

Opeia. Few.

Agnostellix. Jeneral but not common, on ground.

Xanthippus corallipes. Jeneral seen, one taken on ground, roadside.

Spharagemon aequale. Few. Roadside on bare ground in meagrite.

Hadrotettix. One seen but lost.

Brachystola. One, roadside in rabbit mud.

Schistocera lineata. One, all seen.

Campylacantha. Few, in grass and rabbit mud.

Derpoteleix speciosus. Jeneral, in mesquite jimpts.

Melanoplus differentialis. Jeneral.

" packardi. Few

" fordus type. Few.

" sp.? (long-winged.) ♂+♀.

Scudderia sp. One male taken from meagrite near bottom J drawn.

Rehnia victoriae. Numerous along roadside drawn in Koeberlinia like plant and a smoky plant, less frequent in rabbit mud. Twenty-one taken

in all, 8 ♂, 13 ♀ (some found in alcohol). In one case five individuals were seen in a single plant of the woody composite, and in a number of cases two were noted in a single plant. Rhinia and Pediodectes sp. 1 were often found associated in the same host.

Pediodectes species 1. Under the same conditions and running in much the same fashion as Rhinia.

Pediodectes species 2. One taken in sand mound.

Amphalus sp. 4 imp ♂.

Both. 115 + 47 13 = 4828.

Other mis. 10 + 3129 = 3139.

1939.139 Five miles east of Odell, Wilbarger Co, Texas. Elev. 1060 feet. August 29, 1939. (R. + R.)

Area with white sage (apparently), Cenchrus, tumble weed and tall grass.

Systola admirabilis. Numerous.

" fuscovittata "

Murmilia mac. macutipennis. Few

Agenotettix. Rather numerous.

Hippiscus One seen + taken.

Tphangonia cristatum. Few.

Hospitettix spinosus One seen + taken

1939.139 (cont.)

Campylacantha. Numerous - mostly juvs. - in white sage but not excluding sp.

Melanoplus impiger type. Numerous.

Acanthus. Impt.

Orth. 31 + 4828 = 4859.

Other ins. 6 + 3139 = 3145.

1939.140 Sandhills along south bank of Red River, south of Elmer, Jackson Co., Okla. Elev. 950 feet. August 29, 1939. (R. & R.)

Hills (rolling) of reddish sand, with some of white sage (apparently) some narrow-leaved yucca, shin oak, tall grass and numerous other low shrubs and weeds. Occasional small areas of almost or quite bare sand.

Litaneutria. One juv. impt.

Diaphemmora velici. Three males, from tall grass.

Diaphemmora sp.? 2 juvs. (2) from tall grass.

Hermicia mac. maculipennis. Few.

Agenotettix. Moderately numerous.

~~Paratrox texana~~ Juvs. only. On ground.

Phaneroptera curtatum. Numerous.

Hippiscus. Few.

Neopolyphis opuntiae. Few, in cactus and.

Campylacantha. Juv. Taken.
Paroxonala. Few in tall grass.
Melanoplus femur-rubrum typ. Gen. Rather general but no males taken.
Mel. bruneri typ. Few.
" glaucipes. Few taken.
Arethaea. Numerous. Mostly empt from tall grass. 3♂, 6♀ taken.
Cyclopsitalum. Empt.
Acanthus. Empt.

Orth. 42 + 4859 = 4901.
Other ins. 12 + 3145 = 3157.

1939. 141 Outlying knob of Wichita Mts., 2 miles east of Snyder, Kiowa Co., Okla. Elev 1100-1350 feet. Aug. 29, 1939. (R. & R.)
Surface of hill very largely hunted grassfield bordered by various trees, the commonest chiefly low and gnarled oak trees; also mixed grasses. Roadside drain (dry) and narrow ditch at bottom of hill grass and mud around.
Litaneutria. Juv. Few empt.
Stagmomantis. Juvs. (2) Empt.
Syntula admirabilis. Abundant at post of hill. Adults & juvs.
Syntula fraconitata. Abundant on hill slopes. Adults & juvs.

1939.141 (cont.)

Neminia mac. manifpennis. Few, on hill slopes.

Agenioletes. Abundant on grassy at foot of hill. Few on knoll itself.

Hippiscus. Few at foot of hill.

Campylacantha. Numerous locally at foot of hill. Adults and juvs.

Hesperoletes viridis-type. Numerous at foot of hill.

Melanoplus packardi. Few.

" bivittatus. Common.

" glaucipes. Local on hill.

" short-winged. 1♀ on hill in low oak comm. All stem.

Schistocerca 1 or 2 spp.? Not numerous in oaks on hill. ♂ a single spp. the color range is very great for one locality.

Pediodectes sp. 1♀ impt.

Cyclopteleum. Imp't at foot of hill.

Orth. 72 + 4901 = 4973.

Other ins. 7 + 3157 = 3164.

1939.142 Between Tatum and Hennepin, Garvin Co., Okla.

Elev. 900 ft. Aug. 29, 1939. (R.-C.)

Low dunes and tangled oak woods, with intervening, park-like grassy slopes. Undergrowth in woods almost entirely oak sprouts.

Syrbula admirabilis. Abundant.
Orphulella. Few. Common on grass.
Agneotettix. Few but local.
Encoptolophus? 1 juv.
Hippiscus. Numerous in grass and at roadside.
Spharagemon aequale. Few in grassy areas.
Hadrotettix. Few. Roadside and grassy areas.
Melanoplus bivittatus type. In oak woods, lighting frequently on oak trunks.
Campylacantha. Few. In woods.

Orth. 22 + 4913 = 4995. [marginellus sp. 1 juv. hippi.]
Other ins. 1 + 3164 = 3165.

1939.143 Ardmore, Carter Co., Okla.
Aug. 29, 1939. Elev. ?700 (R.-R.)
Attracted to light at night.
Orth. 0 + 4995 = 4995
Other ins. 16 + 3165 = 3181 [+alcoholic]

1939.144 Five miles east of Ardmore Carter Co., Okla. Elev. 650 feet.
Aug. 30, 1939. (R.-R.).
Path like scrub oak with grassy areas between, much low oak scrub to bottom of shallow dry draw.
Dichromorpha sp. 2 ♂ and 2 juvs
swept from tall grass.

1939.144 (cont.)

Syrbula admi. Numerous.
Melanoplus mac. maculipennis. Several.
" picta. One taken, all new.
Agenotettix. Common.
Amblytropidia. Juvs. rare.
Hippiscus. Few.
Radiotettix. Few.
Schistocerca. Very few - one taken
melanoplus infuscatus type. In fair
number.
Melanoplus short-winged. Several
males in bottom & draw.
Dissosteira pratensis. One flushed
from grass among oaks.
Campylacantha. Adults and juvs. Few.
Amblycorypha rot. One ♀ rare.
Neoconocephalus. Juv. Rare.
Orth. 34 + 4,996 = 5029.
Other ins. 4 + 3181 = 3185.

1939.145 Seven miles southeast of
Medill, Marshall Co., Okla.
Elevation ? Aug. 30, 1939.
(R. - R.)
Old field with tall oat grass
and many weeds.
Stagmomantis. Adults and juvs. not
uncommon.
Diapheromera. Few in tall grass.
Syrbula. Common.

Mermiria mac. maculipennis. Common.
Camptotacentha. Adults + juvs. Few.
Melanoplus differentialis. Abundant
and juvs.
Melanoplus bivittatus. Common.
" femur-rubrum. Numerous.
" punctulatus? Locally common,
Few in tall grass. Two males taken
Conocephalus. Few, ditto.
Cyclopteleum. One adult.
Orth. 67 + 5029 = 5096.
Other ins. 2 + 3185 = 3187.

1939. 146 Between Hugo and Grant,
Choctaw Co., Okla. Elev. ?
August 30, 1939. (R. & R.).
Roadside slough and field grown
high with rudy yellow-flowered
composite.
Diagnemantis sp. Adults and juvs.
About roadside slough.
Brunneria. Nymphs. Adults
and a few juvs. In tall grass near
roadside slough.
Tettigidea. Adult and nymph near roadside
slough.
Syrbula. Abundant.
Orphulella. Few - taken in both
conditions.
Campylacantha. Juvs. only. Not common.

1939.146 (Cont.)

Melanoplus differentialis. Numerous.
" mexicanus. Abundant.
" impiger type. Numerous.
" Hunt. Imitrd. Few.

Scudderia. 2 juvs.
Orchelimum. Relatively common - adults and juvs.
Conocephalus. Adults. Juvs. By slough.
Neoconocephalus. Juvs.
Hapithus. One imput. roadside area.
Oecanthus. Numerous in old field. Adults - juvs.
Orth. 64 + 5096 = 5160.
Other ins. 17 + 318 = 3204.

1939. 147 Two miles east of Aletoria, Red River Co., Texas. Elev. 530 feet. Aug. 30, 1939. (R.-R.)

Roadside bridge and portion of dense sand oak woods with grassy cover at edge largely tall grass and a shallow, strict gray-green weed.

Stagmomantis. Juv. One imput.
Hierodula. Two species taken together in woods and along border of same, in tall grass.
Syrbula. Juvenal.
Orphulella. Few.

Amblystomidia juv. rupt.
Schistocerca juv. Relatively
numerous.
Melanoplus longipes - type.
" short-winged species } Dev
" short-winged species. Dev.

Reproductive potential. Numerous
readily in strict wood's edge.
Amblycorypha rotundifolia. Adult
subpt at woods edge.
Neoconocephalus 1 ♀. Subpt at
woods edge.
Orthoptera. Immature
Cyrtoxipha. Juv. subpt.
Orchelimum. Juv. subpt.
Atlanticus. Juv. subpt.
Orth. 55 + 5160 = 5215.
Other ins. 6 + 3204 = 3210.

1939. 148 Seven miles east of Texarkana,
Miller Co., Arkansas. Elev. 350 feet.
Aug. 31, 1939. (R. & R.)

Open pine and oak woods with
undergrowth chiefly oak sprout, sumac
and a shrub with spherical clusters of
small purplish fruits in berries, bare
woods and grasses between

1939.148 (cont.)

Brunneia. Numerous, in roadside bunch grass.

Diaphorodmera. Roadside and in woods. In tall grass.

Syrbula. Numerous.

Amblytropidia. Juvs. only.

Arphia. Few.

Spharagemon bolli. Few, one taken.

Schistocerca alutacea. Juvs. numerous.

Melanoplus short-winged. 2 species?

Few, in moist undergrowth.

Neoconocephalus sp.? One juv. Imp't.

Orphitheus. Few. Imp't from oak & cedar.

Cyclopteltum. Juv. Imp't.

Orth. 33 + 5215 = 5248.

Other ins. 2 + 3210 = 3212.

1939.149 Magnolia, Columbia Co., Arkansas.
Elev. 300 feet. Aug. 31, 1939. (R. & R.)
In old fields and roadside weeds.

Stagmomantis. Juv. Imp't.

Syrbula. Abundant.

Orphulella. Roadside.

Dichromorpha. Roadside.

Dissosteira carolina. Adults & nymphs taken.

Schistocerca (Cyntophaga) vinidi-fasc. One male taken. Few nymphs.

Schistocerca alutacea. Adults and juvs. in fair numbers.

Melanoplus femur-rubrum. Abundant, juvs.

Melanoplus short-winged. Common.
" differentialis. Roadside,
fairly common.
Scudderia. Few.
Amblycorypha rotundifolia. One.
Neoconocephalus. Few.
Orchelimum. Adults and juvs. Common.
Conocephalus. Adults. Common.
Hapithus. One tmpt.
Oecanthus. Juvs. Tmpt.
Orth. 86 + 5248 = 5334.
Other ins. 9 + 3212 = 3221.

1939. 150 Between Cargile and Upland
Union Co., Arkansas. Elev. 300 feet.
Aug. 31, 1939. (R. & R.)
Mixed pine, oak and sweetgum woods,
with dense and high undergrowth,
chiefly oak sprout and sumac.
~~Hadronotus~~ ~~juv. One tmpt.~~
Blummeria. 1 ♂ + 1 ♀ tmpt from
tall grass at road edge & woods.
Diapheromera. Adults and juvs.
in tall grass, roadside and in
woods.
Anisomorpha ferruginea. One pair
found under dead wood on surface of
ground; remainder of specimens
were found under bark of small dead
and largely dry rotted pine. The

1939.150 (cont.)
whole flat was a mass of cavities, and into these the Canis urinophagus urine packed quite solid, all or nearly all paired; 1 ad. ♀, 1 juv. rupt.
Symbiota. Juv. & ♂, not few.
Cambytropidia. Juvs. Relatively common.
Melanoplus short-winged. Few in woods undergrowth.
Melanoplus ~~insignis~~ long-winged type. One.
Canis ~~Neura~~ urinophagus. Juvs. Few.
Cambycorypha allardi. One ♀ rupt.
Tettigidea shaleri. Juv. rupt.
Orth. 85 + 5364 = 5449.
Other ins. 10 + 3221 = 3231.

1939.151 One mile north of Hurbach, Lincoln Parish, Louisiana. Elev. 240 feet. Aug. 31, 1939. (R. & R.).
Mixed short-leaf pine, oak and mut pine forest, with smilax and high undergrowth chiefly of oak scrub and sumac. Also cedar open short-leaf pine woods, with 1 flow of dead pine woodlot and open, moist high scrub oak undergrowth with patches of short grass.
Stagmomantis Juvs. Oak scrub in mixed forest.

Pseudosemnyle 2 ♂, 1 ♀ ad. & Female in pine woods. Males in tall grass in mixed woodland.
Diaphisemma. 2 ad. ♂, 1 juv. ♂ 1 juv. ♀. Grass in mixed woods and roadside.
Syrbula. Several.
Orphulella. Roadside.
Amblytropidia. 1 ♂ and juv. in pine woods.
Chortophaga. Several but local.
Arphia. 1 in pine woods.
Hippiscus. One in mixed woods.
Spharagemon aequale. Along pine road into woods. Very many - but not taken.
Schistocerca alutacea. Adults seen.
Melanoplus. Short-wing. Few in both types of woods.
Melanoplus. Long-wing. with striped femora. One ♀ in low scrub oak.
Dactylotus. Several.
Acanthus. Juvs. Imps.

Birds. 41 + 3419 = 3460.
Other mis. 3 + 3231 = 3234.

1939. 152 Bee Bayou, 2m. east of Rayville, Richland Parish, Louisiana. Elev. 60 feet. Sept. 1, 1939. (R. + R.)
Heavy timber with clumps of heavy undergrowth and thin ands

1939.152 (cont.)
of tall grass. Scattered saw palmetto.
Stagnomantis Juv. Impt.
Acrydium. Two imp't.
Syrbula. Few.
Orphulella. Few. Adults + juvs.
Melanoplus short-winged. Locally numerous.
Melanoplus short-winged. Locally numerous.
?Paroxya sp. Few. Juvs.
Scudderia. Four fair (2)
Amblycorypha rehni. One. From tall grass.
Neoconocephalus. One ♀ Impt.
Conocephalus (2 spp.) Adults numerous.
Phylloscirtus. One Impt.
Orchamus. 1 ad. + 1 juv. Impt.
Hapithus. Impt.
Cyclopticus. Numerous Impt.
Melanthus. Adults and juvs. numerous. Impt
With. 75 + 5460 = 5535.
Other ins. 28 + 3234 = 3262.

1939.153 Five miles east of Tallulah, Madison Parish, Louisiana. Elev. 50 feet. Sept. 1, 1939. (R. & R.)

Roadside drain and adjacent railroad right of way, with shoulder-high coarse grass and sedges, and adjacent tangles of wild grape.
Melanoplus thunt-linnged. Few in tall grass.
Schistocera americana. Adult. One only seen - taken.
~~Also~~ Schistocera damnifica. One in wild grape.
Melanoplus differentialis. Abundant.
" femur-rubrum. "
Orchelimum ~~mexicanum~~ gladiatorium. Fair # in tall grass.
Conocephalus (2 spp.) Local in tall grass.
Hapithus. One nymph.
Acanthus. Nymph. Adult.
Orth. 39 + 5535 = 5574.
Other ins. 3 + 3262 = 3265.

1939. 154 Between Bolton and Clinton, Hinds Co., Mississippi. Elev. 250 feet. Sept. 1, 1939. (R. - R.)
Roadside grass and weeds, in roadside drain with tall growth, and in nearby low deciduous woods with much undergrowth.
Stagmomantis. 1 ad. ♀ - nymph
roadside vegetation.

1939.179 Mat side of Walker Mountain, Bland Co., Virginia. Elev. (aner.) 2900 feet. Sept. 7, 1939. (R.-R.)
Tangled Ender of deciduous forest, Tettigidea. Sympt.
Mel. luridus 1♀. 18 mm - host.
Orth. 2 + 6471 = 6473.
Other ins. 5 + 3442 = 3447.

1939.180 Near Bastian, Bland Co., Virginia. Elev. (aner.) 1975 feet. Sept. 7, 1939. (R.-R.)
Road edge of dense second growth deciduous woods. Very little Melanoplus luridus. One "
" femur-rubrum. Two Amblycorypha rot. One male. Conocephalus. 1♂, 1♀.
Orth. 5 + 6473 = 6478
Other ins. 4 + 3447 = 3451.

1939.181 Gap (find name) mountain from Rocky Gap, Virginia. On line of Bland Co., Va., and Mercer Co., W. Va. Elev. 3300 feet. Sept. 7, 1939. (R.-R.)
Cut ridge of low deciduous growth bulldozed stream summit ridge. ~~Dust.~~
Tettigidea, Sympt.

Alexandria. Sum but not captured.
Schistura Linn. Jan. 1889.
Melanoplus Fundulus. Fam.
" Fumipennis. Comm
" Bivittatus. Fam.
" walshii Typ. Coral in Cud
Fungles.
Scudderia? Numerous.
Xiphidium Empt in Fall pas.
among Viridus.
Conocephalus Fam.
Fasciatus - Empt.
Arth. 27 + 6478 = 6505.
Other ins. 11 + 3451 = 3462.

1889. 182 Six miles east of Princeton, Mercer Co., West Virginia. Elev. 2200 feet. Sept. 7, 1889. (R. & R.)
Edge of and in mixed oak, hickory, locust, chestnut and pine woods.
Chortophaga. Jan. Edge.
Xiphidium Jan. "
Sphagnum plumum. Eq, all sum, on low grassy area.
Melanoplus Fundulus. Adults.
Femur.
Scudderia. Fem.
Pennsylvanicus Femur. Elm trunks
Com. Arth. 9 + 6505 = 6514.
Other ins. 1 + 3462 = 3463.

1939. 183 Mountain Lake, Giles Co., Virginia. Elev. 4000 feet. Sept. 7, 1939. (R. & R.).
Edge of low dense deciduous woodland.
Neonetta. One strongly lichanose individual, sept. from Lond. pennsylvanicus - chiefly mild thawing.
Tettigidea. One juv. sept.
Melanoplus femur-rubrum. Numerous.
Mel. lunidus. Adults & juvs. taken.
" walshii Type. ♂ & ♀ all dens.
Male vividly colored on green areas. — and translucently
Scudderia. Nymphs.
Neoconocephalus. Nymphs.
Orth. 13 + 6 + 14 = 6027.
Other ins. 4 + 3468 = 3467.

1939. 184 Road crossing of Catawba Ridge, Roanoke Co., Virginia. Elev. (bush mark). 2000 feet. Sept. 8, 1939. (R. & R.)
Low but dense mixed woods and fine lane cutting in case.
Melanoplus. 2 ♂, 1 juv. ♀. Sept in variety of situations.
Chortophaga. Seen but not taken.

Melanoplus thut-minged. 1♂, 2♀. Taken in roadside grass and low huckleberry.
Amblycorypha rotund. 1 in low oak.
Conocephalus ? attenuatus. 1♀ in tangled fine vine growth.
Oecanthus. Inept from the foliage, oak and hickory.

Orth. 16 + [652] = 6743.
Other ins. 3 + [346] = 3470.

1939, 185 McAfee's Gap, between Brush Mtn. and North Mtn., Craig Co., Va. Elev. (aneroid), 1670 feet. Sept. 8, 1939. (R. & R.).
Birches & and within low deciduous second-growth forest. Undergrowth largely oak & cane, ground cover largely huckleberry and cane.
Orphula. Ind. Roadside.
Pharagmus Wilki. Fem. not lost.
Scudderia. 2 ♀♀. Inept from undergrowth.
Oecanthus. Numerous - inept from undergrowth foliage and ground cover.
Anaxipha exigua. Inept from oak foliage.

Orth. 11 + 6743 = 6754.
Other ins. 5 + 3470 = 3475.

1939. 186 East slope of Potts Mtn., Craig Co., Virginia. Elev. 3150 feet (Tuck mand). Sept. 8, 1939. (R. & R.) Mixed deciduous forest with much chestnut. Undergrowth largely oak and chestnut scrub, laurel and huckleberry.

Diaphnomeris. 1 ♂ rupt.
Sphaerogramma wilsii. One on ground.
Melanoplus punctulatus. 1 ♂, 1 ♀, Roadside.
" " short-winged. 1 ♂. 2 ♀, In ground cover.
Mel. walshii type. 1 ♂. 1 ♀. In ground cover.
Scudderia. Numerous, on foliage.
Amblycorypha rotundifolia. One rupt from low growth.
Phylloscirtus. One rupt from low growth foliage.
Oecanthus. Numerous on foliage of low growth and ground cover.

Orth.	26	+ 6, 54 =	6, 80.
Other ins.	7	+ 3475 =	3482.

1939. 187 Summit of Peters Mtn., Craig Co., Virginia. Elev. (Tuck mand) 3050 feet. Sept. 8, 1939. (R. & R.) Wood road and ground under forest with deciduous forest.

Tettigidea. Une in ground.
Euphilia. Une jun.
Chortophaga. Adults & jun.
Dissosteira car. Few!
Opharagmum planum. Une in grass.
Melanoplus minor. Numerous.
" lunidus. "
" bivittatus. Few.
Conocephalus robustus, Une.
Conocephalus. Une only.
Orchelimum. Imp.

Orth. 22 + 6780 = 6802.
Other ins. 7 + 3482 = 3489.

1939. 188 Road pass between Covington and Hot Springs (about 8 m. N. of Covington), Alleghany Co., Virginia. Elev. (ave.) 2350 feet. Sept. 8, 1939. (R. & R.)

Stand growth mainly deciduous dry forest, with usual undergrowth of oak & chestnut, sassafras, locust, sumac and low huckleberry.

Dissosteira car. Few, along road.
Opharagmum planum. Locally numerous on road and plateau; finely rather gray dark tank. Males only.
Opharagmum wildi. Une ♀. Roadside.

1939. 188 cont.,
Melanoplus viridus. Fed, in
thickening mixed ground
cover.
Melanoplus fa. minged. 10, in
undergrowth.
Scudderia fed. In oak scrub.
Neoconocephalus. comp.
Scrub. 12 = 6802 = 6814
Grass mix. 11 = 3489 = 3500

1939.189 Top of ridge, Warm Springs Mtn., east of Warm Springs, Bath Co., Virginia. Elev. 2950-3300 feet (birch mark camp.). Tall grass and sumac from clearing with close ground cover of trailing blackberries. Also along trail and road through low second growth deciduous woods with oak, sassafras and similar undergrowth. Ground cover largely huckleberry and sprout fern. Diaphromera. Locally abundant in tall grass and on foliage of oak scrub.

Clinotophaga.
Adults & juvs.
Orphula. Two in thickets.

Orphulella speciosa
1 Fahrn, another lost,
along road, in
oak scrub.

Eucoptoclophus. Few, in clearing.
Spharagemon planum. Une,
alng and road.
Hisbotria. Few.
Melanophus femur-rubrum. In
clearing.
Mel. tinctatus. Une - road side.
Tandeina. Numerous, chiefly
alng and road.
Amblycorypha. Rot. Alng and
road.
Orchelimum. Numerous locally
in clearing.
Conocephalus. 2 spp. In clearing
Neonotus. Rare.
Oecanthus. Two spp. In woods a
clearing. Oe. latip. in clearing
only. Oe. nigricornis in alder.
With. 93 + 6814 = 6907.
Other ins. 25 + 3500 = 3525.

1939. 154 (Cont.)

Syrbula admn. Adults and juvs. Roadside and in woods.
Orphulella. Roadside and in woods. Adults and juvs.
Amblytropidia. Juv. Roadside.
Melanoplus. Adults - in woods.
Chortophaga. Immat. Few.
Schistocera lineata. Juvs.
Melanoplus short-winged. Abundant. Immat. in accumen.
Melanoplus mexicanus. One ♂ and 1 ♀ at wood edge, ♀ roadside.
Mel. differentialis. Roadside.
Scudderia. Adult ♂ + juvs. In woods and roadside.
Orchelimum. Juvs. Roadside.
Conocephalus. Abundant. Adults and juvs. Roadside
Dissosteira carolina. One imp. In woods.
Arth. 53 + 5574 = 5627.
Other ins. 11 + 3265 = 3276.

1939. 155 Forest, Scott Co., Mississippi. Elev. 450 feet (check!) Sept. 2, 1939. (R. - R.).

Open mixed pine, oak and mixed jungle woods, with short grass ground cover and clumps of oak sprout undergrowth. Also roadside stretches of tall grass.

Probubia. One under bark of dead oak log.
Tettigidea. Few in litter woods and roadside.
Morbotettix. A single tarpot from ground in woods.
Prototettix. Few, on ground in woods.
Syrbula. Abundant. Roadside
Orphulella. General.
Amblytropidia. Few only. In woods.
Dichromorpha Adult and juv. In woods.
Chortophaga. Juv. Roadside.
Hippiscus. Common, Roadside.
Melanoplus femur-rubrum. Roadside.
Melanoplus short-winged. 1 ad., 1 juv.
Roadside.
Scudderia. Roadside.
Conocephalus. "

With. 57 + 3627 = 5684.
Other ins. 12 + 3276 = 3288.

1939.156 Last Gap, Lauderdale Co., Mississippi. Elev. 450 feet. IX,2
Dry sandstone hills, with frost cover of shrub oak and pine, undergrowth chiefly oak scrub, huckleberry, sweet fern and tall bunch grass.
Paicobatta. ad. ♀ and juv. under dead leaves on ground.
Hippiscus. 1 ad. ♀ and numerous juv. swept from bunch grass.

1939. 156 (cont.)

Radinotatum. Few. Juvs. in brush grass.
Orphulella. Juv. only
Conocephalus. Juvs. Final.
Orphula. Local. Few.
Hippiscus " "
Schistocera amer. Juvs. Few.
" damnifica. Local. ♂ in oak scrub.
Melanoplus luridus. Few. ~~Among~~
Among oak scrub.
Melanoplus short-winged. Juvs. only. Numerous.
Scudderia. Juvs. only
Amblycorypha uhleri! Adult (1). Impt.
Neoconocephalus. One ♀. Impt.
Odontoxiphidium. Few.
Hapithus. One, Juv. Impt.

Orth. 44 + 5684 = 5728.
Orthn. juv. 3 + 3288 = 3291.

1939. 157. Boligee, Greene Co., Ala.
Elev. 114? Check up. Sept. 2, 1939.
(R. + R.)
In roadside tall grass and weeds.
Tettigidea. Impt.
Radinotatum. Few. Impt.

Lycosula. Few.
Pardosa. Few.
Trochosa. Few.
Lycosa. Few. Adults + juvs.
Dolomedes. Few. Juvs. only
Tetragnatha. Few. ✓
Epeira. Few.
Argiope. Few. Juvs. only.
Theridion. Few.
Latrodectus mactans. Adults common. Juvs equally in evidence, with those of the type, evidently in the instar preceding maturity, one entirely green, except for a black stripe on dorsum of prosoma and abdomen, dark stripes, dark spot at base of wing pad, and ventrally, and sometimes dorsal. The other type is reddish orange, with much stronger, dorsal stripe on prosoma, caudad on fovea, prot. portion of lat. lobes suffused with dark, broader and more distinctly developed eye-stripe, veins of wing pads distinctly lined with black, and broad spot at base of wing pad more distinct, and caudal femora very definitely barred transversely with black. Melanoplus femur-rubrum. Abundant.
Mel. mexicanus. Femora.
" borealis. Few.

1939. 15) (cont.)
Melanoplus Short-winged. ~~Food.~~ 1
Adults and juvs. Fahn.
Scudderia. Numerous.
Amblycorypha uhleri. One nymph.
Neoconocephalus. One adult nymph.
Conocephalus strictus? Numerous
" fasciatus. Few.
" ~~2~~ 3rd species. Few.
Orchelimum. 1 ♀. Few.
Orth. 78 + 5728 = 5806.
other ins. 8 + 3291 = 3299.

1939. 15.8 Pittsboro, Tuscaloosa Co., Alabama. Ammid says chick probably hiyan! Sept. 2, 1939. (R. + R.) 500 ~~400~~
Low pine, oak and mixt pine woods, undergrowth mainly young pine scrub and vines, with a little oak scrub and much grass.
Oligonicella. One ♂ nymph.
Hieroglyphus. Ad. ♂ and numerous juvs. Nymph from under-fronta.
Tettigonia. Few.
Amblytropidia. Juvs. up to instar preceding maturity. Numerous.
Schistocerca amer. Juvs. Few.
Melanoplus Short-winged. Adults + juvs. Rather more numerous than from

Scudderia. Numerous.
Amblycorypha uhleri. Abu.
Odontoxiphidium. Few.
Conocephalus strictus typ. Few

Microgyllus. Abu juv. sumpt.
Hapithus. Abu sumpt.
Cyclopitilum. " "
Oecanthus. Adults & juvs. sumpt.
Orth. 44 + 5806 = 5850.
Other ins. 5 + 3299 = 3304.

1939.159 Anniston, Calhoun Co., Alabama. Elev. (look up). 750
Sept. 3, 1939. (R. & R.)
Attracted to lights at night.
Orth. 0 + 5850 = 5850.
Other ins. 25 + 3304 = 3329.

1939.160 Summit of Cheaha Mtn., Cleburne-Clay Counties, Alabama. Elev. 2400 feet.
Sept. 3, 1939. (R. & R.)
Low, relatively open forest of pine and oak of mutual species, with undergrowth of various character but chiefly Scrub oak and huckleberry Many rocks and slabs of metamorphic material strewn through the timber.
Paroblatta. ad. ♀ and 2 juvs. in rotting oak log.

1939.160 (cont.)

Oligonicella. 1♀ in ground under dead corn.

Diaphorura. 5♂ & 1♀ adults, and numerous juvs. ~~from~~ found in oak. Adult ♀ found resting quietly, ~~no~~ as ♀ extruded on moss covered rotten dead oak stub.

Cittigidea. One supt.

Tyrbula. One ♂ only.

Anurophorida. Juvs. supt.

Schistorcera americana. 1 ad. & num. juvs.

Schistocerca alutacea. Two nymphs, on tabanus, in oak foliage.

Melanoplus luridus. 1♂, 1♀, in bandelaniers.

Melanoplus bivittatus. 1♀ in low ground corn.

Melanoplus short-winged. 2♀, in low ground corn. Extensive search failed to locate any males.

Melanoplus walshii typ. One ♂ on dead oak leaves on ground.

Amblycorypha uhleri. One, flitting in low corn.

Amblycorypha rotundifolia. One, in ground corn.

Scudderia. Adults and juvs. Juvs. more numerous than adults. On oak sand,
Atlanticus americanus. One ♀ jumping on dead oak trees on ground.
Orchelimum. Juv.
Conocephalus. Juv.
Neoconocephalus. Juvenal but fed. Quite small.
Decanthus. Locally numerous on oak foliage.

Orth.	65	+ 5850	= 5915.
Other ins	21	+ 3304	= 3315.

1939. 161. Cheaha Mtn., Cleburne-Clay Co., Alabama. Elev. 2200 feet. September 3, 1939. (R.-R.) Similar conditions to those at 1939. 160 but 200 lower down the slope.

Diapheromera. Juvs. only. Rare.
Orphulella. Fairly common - Fahrn.
Opharagnum. Juvenal under trees.
Schistocerca americana. Juvs. Juvenal.
" alutacea. One on pine tree trunk.
Melanoplus walshii type. One ♂ rare.
" punctulatus. Juvs. only.
Scudderia ad. + juvs. on oak foliage.
Amblycorypha rotundifolia One.

1939.161 (cont.)
Neoconnephalus. One ♀ and juv.
dumpt.
Odontoxiphidium. Few.
Camptonotus. One dumpt from
undergrowth.
Arcyptera. Two only. dumpt.
Hapithus. Adult. dumpt
Orth. 22 + 5915 = 5937.
Other nos. 4 + 3315 = 3319.

1939.162 Muscadine, Cleburne Co., Alabama. Elev. 850 feet. September 3, 1939. (R.-R.)

Open mixed woodland with mixed undergrowth of oak and pine scrub, Rhus, short fern and bunch grass.
Melegonidia. One running on fern.
Anabolia. Two. minimum.
Sphagnum bolli. One, all stem.
Phrissoma. Two. of 2 spp.? Nymphs in various instars.
Melanoplus bivittatus. Few, all adults.
" short-winged. Few. Adults and juvs.
Amblycorypha uhleri. Few in scrub.
Scudderia. Juvs.
Odontoxiphidium. Several but not common. Adults and juvs.

Cunnophalus. Few.
Neocunnophalus. Juvs. Few.
Centrophilus. Adult and dead leaves
Hapithus. One empt.
Phylloscirtus. " "
Acantholus. Adults + juvs. Numerous empt.

With. 51 + 5937 = 5988
Other inv. 8 + 3319 = 3327

1939.163 Alpharetta, Fulton Co., Georgia. Elev. 925 feet. September 4, 1939. (R.-R.)

In open pine woods with some deciduous trees, low undergrowth and much brush grass.

Sybula. Few. Adults and juvs.
Amblytropidia. Juvs. Few.
Melanoplus sp.-winged. 1♀ and a few juvs.
Scudderia. One adult in debris.
Orchelimum. 1 ♂ empt.
Odontoxiphidium. Juvs. only.
Neoconocephalus. Juvs.

With. 15 + 5988 = 6013.
Other inv. 3 + 3327 = 3330.

1939.164 Near Coal Mountain, Forsyth Co., Georgia. Elev. 950 feet. Sept. 4, 1939. (R.-R.)

1939.164 (cont.)
Mixed pine, oak, sweet gum and tulip poplar woodland. Relatively open with scattered undergrowth.
Sphaeragnum 6 sp. One on bare ground.
Melanoplus 4 sp. mixed. ♀♀ on bare ground; ♂♂ on black-jack oak scrub.
Scudderia. Adt. on oak foliage.
Neoconocephalus. Juv. in tall grass.
Orchestina latipennis. Ad. & nymph.
Orth. 7 + ~~5488~~ 6013 = 6020.
Other ins. 7 + 3330 = 3337

1939.165 ~~Eleo~~ Four miles south of Dahlonega, Lumpkin Co., Georgia. Elev. 1350 feet. Sept. 4, 1939. (R. & K.)
Open mixed woods with low mixed undergrowth and scattered oak scrub.
Nomotettix. Two nymphs from ground.
Orphula sp. Juv.
Schistocerca - 2 spp.? - Juvs. only.
Melanoplus luridus ♀ Few. Roadside.
" hunt-mixed. Few adults and occasional juvs. in woods and roadside.
Scudderia - Adults in woods.
Neoconocephalus. Juv. Roadside.
Odontoxiphidium. Few in woods.
Camptonotus. One ad. & nymph from ground cover.

Wash. 18 + 6020 = 6038
Other ins. 15 + 3337 = 3354

1939.166 Vogel State Park, north of Neel Gap, Union Co., Georgia. Elev. (3300 feet. Sept. 4, 1939. (R. & C.)
Clearings in tall deciduous forest, undergrowth head high.
Neotettix femoratus. One tympt from ground.
Melanoplus sp. winged (like camigeo) Numerous in low cov, chiefly wild Hawthorn. All seen adults.
Melanoplus bivittatus. One.
Decanthus. Tympt.
Nemobius: Adult. Under wood chips on ground.
Wash. 12 + 6038 = 6050.
Other ins. 8 + 3354 = 3362.

1939.167 Five miles north of Blairsville, Union Co., Georgia. Elev. 1,900 feet. Sept. 4, 1939 (R. - R.)
Old field on hill slope, at first well grazed, clearing with scattered pine and sumac bushes.
Tettigidea. One tympt from ground
Neotettix Two " " "
Tyrtaeus. Numerous.
Ceritettix Few. Larvae.

1939.167 (cont.)
Amblystropidia. Juvs. Numerous.
Asphia. One on hill slope.
Hippiacus. Few.
Chintophaga. Adults + juvs.
Ichistrema annu. Juvs. only.
Melanophus ♂ mixed. One ♂ only, on hill slope.
Melanophus femur-rubrum. Few.
Scudderia. Adults. Few.
Tettigidea. Adults. Roadside.
Tridactylus. One ♂ + part femur and pronotum.
Xiphidium fasciatum complex. 1 ad. ♂.
" brevipenne One juv. Hillslope.
Mitrytellus. One juv. Hillslope.
Orth. 35 + 6000 = 6035.
Hemiptera 7 + 3362 = 3369.

1939.168 Six miles southeast of Hayesville, Clay Co., North Carolina. Elev. 2000 feet. Sept. 4, 1939. (R. & R.).
In mixed deciduous forest with rather undergrowth.
Amblystropidia. Juvs. only.
Asphia. Juv.
Chintophaga Juv.
Ephanagnum Hebe. One adult.
Ichistrema annu. Juv.

Melanoplus Rhnt-mixed. Few adults and numerous juvs.
Melanoplus Rhnt-mixed (rel. to longicornis)
One male only.
Scudderia. One.
Amblycorypha. Juv. One.
Conocephalus. Adults & juvs.
" addit. spec. Juv. only.
Nemobius. Adults female only
Orth. 26 + 6085 = 6111
Other ins. 4 + 3369 = 3373.

1939. 169. Glade Gap, [Mts. between Hayesville and Franklin], Clay Co. North Carolina. Elev. 3600 feet (Ds. for. trail). 17, 11

Many deciduous forest with deciduous undergrowth, directly in gap.
Acrydium. Single individual swept from ground at edge of forest.
Tettigidea. One, ditto.
Chortophaga. One adult and one juv.
Juvenile.
Melanoplus luridus. Locally abundant. Chiefly on forest edge.
Melanoplus notabilis type. Locally in tangled undergrowth. Adult ♂ and one juv. male exceptionally brilliant.

1939.169 (cont.)
Melanoplus R. mingled (? Lupicinus).
Fem. 3 ♂ 1 ♀. In tangled undergrowth
in ravine along the edge of forest.
Nemobius fasciatus. Type. One adult
♀ from forest floor.
Alt. 69 + 6111 = 6180.
Alt. in. 17 + 3313 = 3390.

1939.170 Ten miles south of
Franklin, Macon Co., North Carolina.
Elev. 1750 feet. Sept. 5, 1939.
(R. & R.)
Hill slope along deciduous forest
border, grown up in tall weeds,
bunch grass and oak and similar
scrub. Nothing in heavy woods except
Scudderia and M. luridus.
Amydium. One ♂ from ground in
sloping.
Nomotettix. One on bank of road.
Tettigidea. Mud edge in ravine.
Syntuda. Adults. - ♂♂. Muddy slope.
Orphula. One from bank by road.
Orchtophaga. Juv.
Sphagnimon bilobi. Muddy slope.
Schistocera amer. Juvs. Fem.
Melanoplus luridus. Juvenal.
" bivittatus. Mingled. Fem in
muddy field and mud edge. Adults.
- ♂♂.

2 spp.
Scudderia. " Abundant. Funeral.
Orchelimum. Adults in marsh grass.
Conocephalus saltans. Grass in
woods slope.
Decanthus. 2 spp. Jumpt from woody
slope.
With. 48 + 6180 = 6228.
Other ins. 8 + 3340 = 3340.

1939. 171 Six miles southwest of Highlands, Macon Co., North Carolina. Elev. (Aneu.) 3900 feet. Sept. 5-19-39
Mixed deciduous forest with marginal clearings, in some areas low scrub, in others grass up in mounds and scrub readings.
Nemobius. Jumpt from ground.

Orphulella. pll. Common in grass and weeds.
Orphula. One on ground.
Hieroglyphus carolina. One on ground.
Melanoplus bivittatus. Fairly. Adults + fives.
Melanoplus punctulatus. Rare. Fives. Two and Third. in tomato corn. J-L
Melanoplus punctulatus. Common. Fives. Two and Third. in tomato corn, J-L.

1939.171 (cont.)

Scaptia. Numerous.
Mecaphesa. Adults. Impt.
Nemobius. Adults in grass.
With. 23 + 6228 = 6251.
Letter in. 6 + 3390 = 3396.

1939.172 Cashiers, Jackson Co., North Carolina. Elev. (aner.) 3500 feet.
Sept. 5, 1939. (R. & R.)
Road opening through mean mixed forest, with areas of Rhododendron and similar tangles, patches of Sphagnum and fall ground in latter.

Nomotettix. Sev. ♂, impt. Sphagnum.
Tettigidea. In fair no., adults + juvs., on ground with low cover.
Orphulella. Few in grass.
Chortophaga. Juv. One.
Dissosteira carolina. Juv. but not rare.
Sphagnum bolli. One on ground.
Melanoplus punctulatus. Few, mostly juvs.
Melanoplus short-winged. Locally abundant, adults + juvs., sticking quite close to ground and usually in the more tangled ground cover. Melanoplus "islobii" type. Few. All taken ♂♂. One male over and beat. Same situation as mel.

Rhyt. mingd.
Lindbergia sp. Few.
" fasciata. Unc rupt at edge of sphagnum patches.
Cumbylanypha rotundifolia.
Rupt. 2 - 4.
Nemotus sp. Common on sphagnum.
Meth. 71 + 6251 = 6322.
Other inv. ? + 3396 = 3406.

1939. 173 Etowah, Henderson Co., North Carolina. Collec. (unc.) 2050 feet. Sept. 5, 1939. (R. & C.)
Spring in mixed, but chiefly deciduous, frost. tall grass and mud with intergrad with laud and hydrodendron.
Nemotelus - 1 spt. 1 adult.
Sphagnum silt. Unc on ground.
Ischnura fus. rupt.
Melanoplus punctulatus. Few.
" rhyt-mingd. Larval.
Conocephalus. Adults (few) and juv. juvenal.
Tipula. Adults.
Tanypus. Unc adult rupt.
Chrysanthus - 1 ad. rupt.
Meth. 21 + 6322 = 6343
Other inv. 5 + 3406 = 3411

1939.174 Chestnut Spring, Oconee Co., South Carolina. Elev. 1,150 feet. June. Sept. 5, 1939. (R.-R.)

Road bridge of mixed woodland with tall grass and weeds. Nothing found in dead leaves in heavy woods.

Amblyomma. Juvs. Roadside.
Dermacentor. Juvs.
Ixodes bundaa. Juvs.
Haemaphysalis. Host-winged. 1 ♂, 1 ♀ (latter unfortunately damaged while alive) and numerous juvs. In roadside weeds and ground cover.
Sanddonia. Adults and juvs.
Amblyomma. Flr. cariniata. 1 ♀ Host, roadside
Rhipicephalus 1♂ and 4 juvs. ♀. Roadside.
Aponomma. Adults host, roadside.
Anaxipha exigua. 1 ♀ host, roadside.

Orth. 37 + 6322 = 6359.
Other ins. 9 + 3406 = 3415.

1939.175 Between Lake Tahoma and Buck Creek Gap, McDowell Co., North Carolina. Elev. 1800 feet. Sept. 6, 1939. (R.-R.)

Cut-off of field along road, tall weeds in small places.

Tettigidea. Numerous. Incpt fem low pronotal crest. Adult. juvs.

Orphulella. Juvs. One only.

Chortophaga. Juvs. and adults. Few.

Melanoplus femur-rubrum. Numerous

" punctulatus. 1 ♀ taken

Scudderia. Adults.

Conocephalus ? saltans. Numerous both sexes.

Oecanthus latipennis. One adult incpt.

Coll. 33 + 6359 = 6392

Other ins. 2 + 3415 = 3417

1939.176 Buck Creek Gap, McDowell Co., North Carolina. Elev. (aneroid) 3750 feet. Sept. 6, 1939. (R. R.)

Roadside edge of rocky deciduous forest with tall rhododendron tangles.

Chortophaga. 1 ad. + juvs. Few.

Dissosteira carolina. Seen but not captured.

Melanoplus walshii type. Few. 2 ♂. 3 ♀ captured. In rather wet area.

Coll. 6 + 6392 = 6398

Other ins. 4 + 3417 = 3425

1939.177 Ingalls, Avery Co., North Carolina. Elev. (aner.) 2800 feet. Sept. 6, 1939. (R.-R.)
Roadside bushes & deciduous forest on slope and road edge. Cleared bushes also grown up in heavy tangles of vines and weeds.
Tettigidea. Adults. 2 juvs.
Cyphia - appar. tulphinia - 1 juv.
Chortophaga. Juv.
Melanoplus walshii type. One male in heavy weedy tangle.
Mel. short-winged species 1. Coral-not numerous in tangled ground cover. Feeds taken regularly carried back on a considerable area.
Mel. femidus. Few. Coral.
" bivittatus. Several seen, 15 taken.
Mel. sh. winged species 2. 1 juv.
Differs from sp. 1 in numerous details of structure and color.
Amblycorypha rot. One female in short grass.
Conocephalus. 3 species. One at least locally numerous.
Phyllopsicitus. One swept
Oecanthus. Two species swept.
Neoconus. Swept in grass.

Orth. 51 + 6398 = 6449
Other ins 5 + 3425 = 3430

1939.178 Stony (?) Fork Creek Valley, 8 miles N.W. of Mythville, Wythe Co., Virginia. Elev. (aner.) 2220 feet. Sept. 7, 1939. (R. 12.)

Old field, grown up in thistle, blackberry and shrubs and weeds, and adjacent border of mixed forest on steep slope.

Sphagnum planum. In narrow stony brook wash.

Melanoplus femur-rubrum. Abundant in old field.

Mel. viridipes. One forest border. Reed.

" short-winged. Forest border, in two grassy areas. Two males taken, one other seen.

Scudderia. Two.

Conocephalus 2 spp. Relatively numerous in old field. One long-winged female, apparently of strictus, in Ol. Neomexicanus. Incpt.

Orchelimum. Incpt.

Orth. 22 + 6449 = 6471.
Other ins 12 + 3430 = 3442.